

FACTS ABOUT ROOFING



A BOOK OF
SALES INFORMATION
FOR OUR DISTRIBUTORS
AND THEIR
REPRESENTATIVES



THE FLINTKOTE COMPANY, 50 WEST 50TH STREET, NEW YORK CITY

Digitized by:



ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL
www.apti.org

BUILDING
TECHNOLOGY
HERITAGE
LIBRARY

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:
Alan O'Bright

THE FLINTKOTE COMPANY
INCORPORATED
RCA BUILDING
50 WEST FIFTIETH STREET
NEW YORK

STUART H. RALPH
VICE-PRESIDENT

To Our Customer Friends:

Success in selling is dependent largely upon "telling the truth in an interesting way".

But how can you "tell the truth" and thus serve the self-interests of your trade unless you know the real facts about your products?

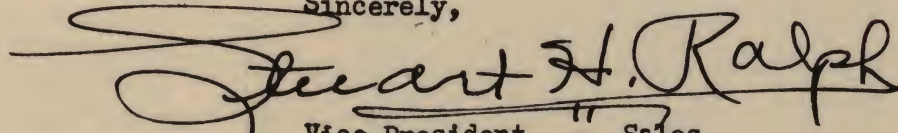
First as a salesman and then as the sales manager for various distributors of building materials, I frequently found it very difficult to secure pertinent information about materials I was selling.

That is why I believe "Facts About Roofing" will be helpful to you.

Some of the most successful distributors of building material products contributed valuable ideas and checked the entire book for its practical every day usefulness.

"Facts About Roofing" has been prepared for you. It is your book. I hope it will help you merchandise these products more successfully with profit to yourself.

Sincerely,


Vice President - Sales



**FLINTKOTE'S NINE ROOFING
FACTORIES AND FOUR FELT
MILLS ARE LOCATED IN THE
STRATEGIC MARKET CENTERS.
MAIN OFFICE, R. C. A. BUILDING,
ROCKEFELLER CENTER, NEW YORK**



HIS BOOK has been written for two reasons . . . First: To help you increase your income as a merchandiser of asphalt roofings, by giving you essential information. Second: To explain the various processes in the manufacture of roofing, so that you may recognize easily the merits of different asphalt roofing products.



The Flintkote Company, established in 1917, is the successor to the original Flintkote Manufacturing Company founded in 1901 to manufacture asphalt roofings, shingles, and asphalt paints.

The business was begun in a small factory in New Jersey. By purchase and consolidation, The Flintkote Company has acquired roofing plants and felt mills located throughout the United States until today nine roofing factories, four felt mills, and warehouses located in all strategic market centers, occupy a land area in excess of one hundred acres.

Flintkote maintains a complete Research and Development Laboratory at the East Rutherford, New Jersey, plant under the direction of some of the foremost engineers specializing in the development of the varied uses of asphalt.

The Flintkote Company, because of its widespread facilities and strong financial position, takes full advantage of any new developments in the industry.



The Flintkote Policy is to manufacture asphalt roofings and allied products of the highest quality. The Company has become outstanding and is generally regarded as the most progressive in the industry because of its leadership in:

1. Producing new products
2. Perfecting manufacturing processes
3. Developing distribution facilities

Customers have had, and will continue to have, these pioneering developments made promptly available through the activities of the Flintkote representatives, ably supported by the efforts of every member of the several departments of the Flintkote organization.

The Flintkote Company maintains its reputation within the industry by continuing to supply products manufactured by the most improved methods and by conducting all its business relationships with all customers on a basis of fair dealing and intelligent cooperation.

Flintkote's products are dependable and its organization trustworthy.

CHANGING TIMES AND TODAY'S SALES OPPORTUNITY

The last few years of economic upheaval have produced a decided change in consumer buying habits.

The 1929 era of easy spending is over. Today's buyer, with increased competition for his shrunken number of dollars, is a close buyer who must be convinced he is getting full value for his money.

And what is value? The answer is obvious . . . value is proven quality at a legitimate price.

True enough, the consumer regards price as important but only in relation to the value delivered.

A proper realization of Today's buying mood combined with a thorough understanding of the proven value of Flintkote products gives you, at the point of sales contact, a unique and highly effective selling advantage.

SELL WITH FACTS

You can honestly demonstrate, by Facts, to your consumers that Flintkote products offer the most in roofing values . . . the greatest returns for each dollar expended.

You may believe that consumers take value for granted when a brand is backed by 35 years of successful manufacturing experience. To a certain extent this gratifying assumption is true. However, the more Facts you have about Flintkote's quality,

the better equipped you are to sell aggressively against competition.

Look at the problem through the eyes of the consumer in the market for a new roof. He has your samples and usually those of your competitors as well. He listens to one roofing salesman and then to another. Each claims his line is best. Eventually the buyer finds himself bewildered by competitive claims because he usually has no known standards on which to base comparisons.

This situation affords you a real sales advantage. You can prove with Facts that Flintkote is "Best" without using that over-worked word.

COMPARE!

The one sure way to do so is a point by point comparison of Flintkote roofing with ordinary roofing products.

In Flintkote you have roofings of a quality far in excess of current standards. You can easily prove this to yourself and to your customers.

Check the chart reproduced at the top of the following page. It lists the 5 fundamentals of roofing quality . . . it eliminates guess-work when buying roofings. Check any line for these five features, remembering that two, three, or even four are not enough . . . that you must have all five.



THE FUNDAMENTALS OF ROOFING QUALITY

	FLINTKOTE	OTHER BRANDS
1. Supersaturation	✓	
2. "4 to 1" Stabilized Coating	✓	
3. Permanent Surfacing	✓	
4. Research and Controlled Manufacture	✓	
5. Resources and Prestige	✓	

These are the factors that constitute roofing quality. This desired quality is not based on the use of the finest raw materials alone. Discrimination in the selection of raw materials is important but no manufacturer has any particular advantage over another provided he is willing to buy the highest grade basic materials available.

Quality in roofing depends upon:

1. Scientific knowledge of the behavior of raw materials.
 2. Exceptional skill and care in every step of the manufacturing process.
 3. A uniform quality standard delivered by controlled machinery operations.
- A rigid adherence to these fundamen-

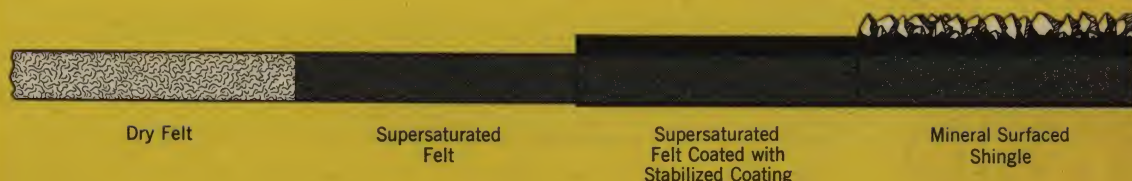
tals produces roofings of superior quality in contrast to ordinary roofings of average or passable quality.

A thorough knowledge of the importance and interdependence of each of the facts listed in the above chart provides you with your best sales help. Each point is discussed fully in this book.

Therefore, let us see how Flintkote quality is achieved by following the manufacturing operations involved in producing a durable and beautiful roofing product. The major steps are outlined in the following pages.

For handy reference "Facts About Roofing" has been cross-indexed. See the Table of Contents on the last page.

EVOLUTION OF A FLINTKOTE SHINGLE





WINDING
DRY FELT
INTO ROLLS

FELT THE BASE OF ROOFING

The base of every type of asphalt roofing product is a sheet of felt.

Flintkote operates four felt mills. Every step of the manufacturing process in these mills is controlled most rigidly.

The ideal felt is soft, pliable, porous. It must contain enough pore spaces to absorb a large percentage of asphalt, yet the felt must not be so loosely compacted that it lacks tensile strength. Furthermore, the felt formula must be controlled so that the finished felt has a pre-determined porosity that permits proper absorption of asphalt to completely fill the felt pores.

The felt base for each grade of roofing should be designed carefully to withstand the stresses of weather and provide resistance to mechanical strains through long years of service. It should be manufactured of fibres possessing ample strength.

Felt is made from rags, but only certain types of rags meet Flintkote's exacting requirements. Rags containing too large a percentage of tough fibres such as wood or hemp produce a hard, stiff felt that cannot absorb the right amount of asphalt.

The term "All wool felt" does not designate any advantage in roofing. This fibre is too soft and fluffy to form a satisfactory sheet if used by itself. Other rags must be mixed with wool to impart strength.

The proper combination of rags, using a preponderance of cotton and wool, produces the right type of felt.

To be positive that anticipated results are achieved, both rags and felt are submitted to careful tests to assure proper weight, tensile strength, asphalt absorption, and moisture-free content. Consequently, we know the porosity of the completed felt and how much asphalt is needed to fill the pores completely for weather-proofing.

The qualities of felts vary. They can be cheapened through the use of many substitutes at the expense of the roofing. The two microscopic photographs shown below tell better than words the differences between Flintkote quality felt built for maximum asphalt saturation and strength and ordinary felt made of inferior rags and short fibres.

There is no easy way to show your customers the quality of felt in the finished roofing. That requires laboratory analysis.

But you can explain to your customers the difference between Flintkote quality felt and poor felt. And you may honestly assure your customers that one of the underlying causes of Flintkote's proven longer life is the use of the finest roofing felts that 35 years of successful roofing experience can produce.

Note the difference between the Flintkote felt and the ordinary felt. Note the long fibres, loosely formed, in the soft, open Flintkote felt to permit maximum absorption of weather-proofing asphalt. In the ordinary felt the hard, short fibres are too closely knitted together to permit ready saturation by the asphalt.

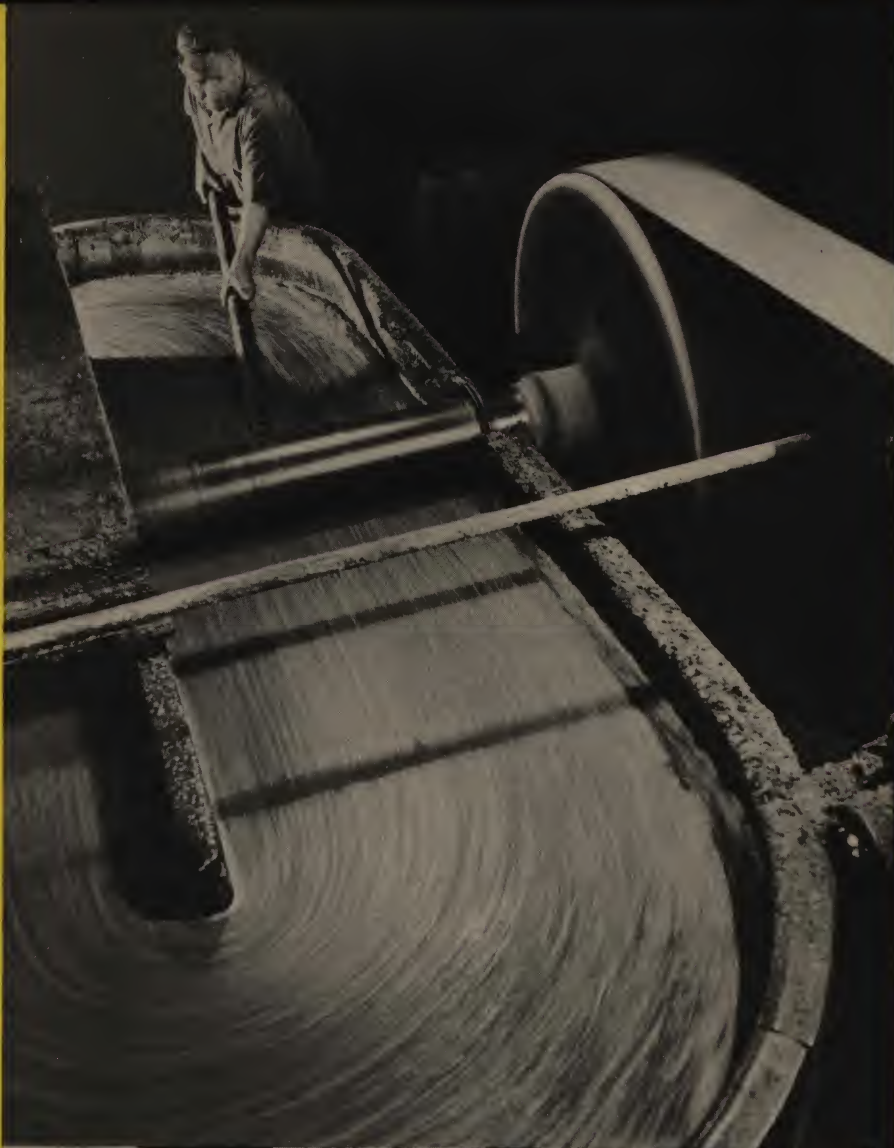


FLINTKOTE FELT



ORDINARY FELT

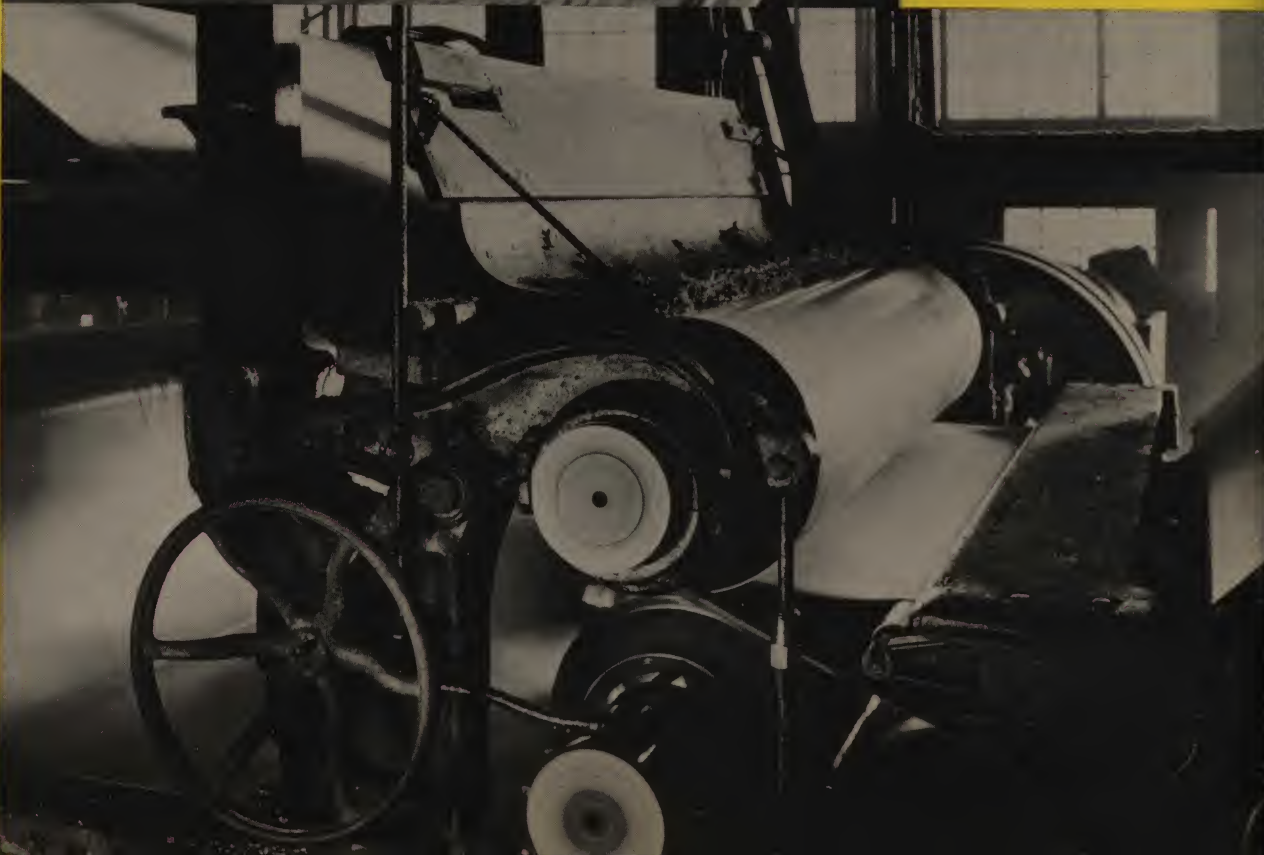
In the *Beaters*, the cut rags are reduced to individual fibres of a desired length for formation into a continuous sheet of wet felt.

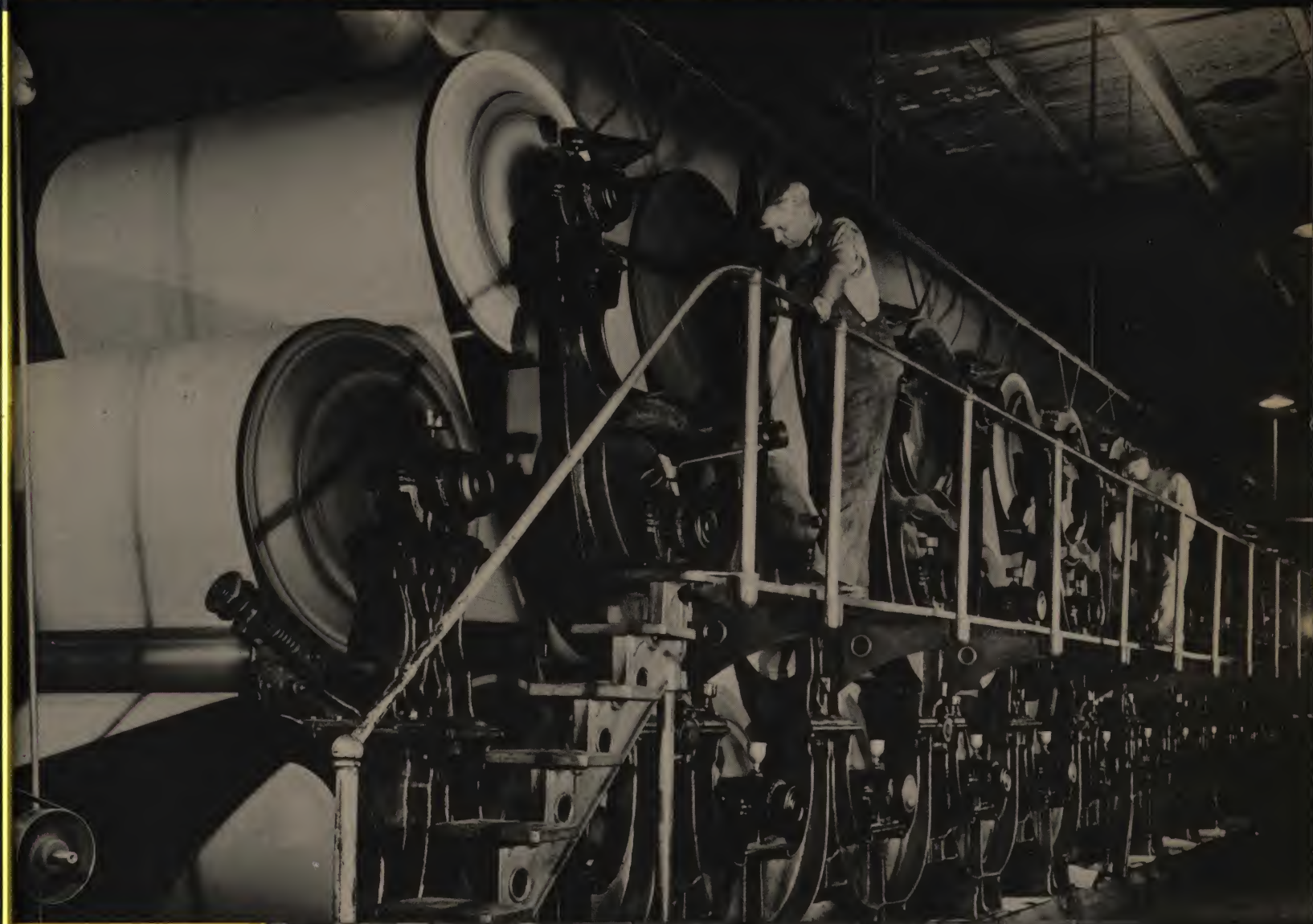


The roofing felt then passes over steam-filled cylinders called *Driers* which, by heat application, eliminate all moisture from the wet felt.



The rag fibres from the *Beaters* are then flowed with water to the *Wet End* of the *Felt Machine* where a wire cylinder revolving in a vat picks up the fibres and forms them into a wet sheet of roofing felt.





The dry roofing felt is then cut, trimmed to proper size, and wound into rolls in this final operation at the *Dry End* of the *Felt Machine*.



ASPHALT

THE WATERPROOFING ELEMENT

Dry felt untreated has comparatively little resistance to the weather because of the lack of waterproofing qualities.

Asphalt, used from the dawn of history as a waterproofing and preserving agent, is the ideal material for this purpose. Asphalt resists both heat and cold. It combines easily with felt and when processed properly provides a durable waterproofing material for the roofing base.

All asphalts are obtained from two sources. "Native" asphalts come in a solid or semi-solid natural state from the earth; "Petroleum" asphalts from the refining of petroleum. All asphalts, however, are original derivatives of petroleum.

"Native" asphalts are usually obtained from asphalt lakes or deposits. They may contain a large percentage of impurities, only a part of which can be removed by further treatment. For this reason, and also because of excessive hardness, very little such asphalt is used by manufacturers of roofing unless combined with a preponderance of petroleum asphalt. Flintkote uses no native asphalts.

Petroleum from which asphalt is derived is found in many localities throughout the world. These petroleums possess widely different properties varying with the source of supply. Flintkote asphalts, for this reason, are made from only a few of the many different types of petroleum available.

Each lot of asphalts received at the Flintkote plants is analyzed thoroughly before acceptance to make certain that the refining operations have been carried out according to specifications. This analysis is made in the Flintkote Control Laboratories under the supervision of trained asphalt chemists. Such work is extremely impor-

tant because any oversight in refining may result in an asphalt product not suited to roofing requirements.

Furthermore, Flintkote does not depend solely upon the petroleum refineries for its asphalt in finished form. The refineries merely supply Flintkote with a base material of definite specifications. This asphalt is then blended and processed in Flintkote asphalt converters to provide the exact types of asphalt best suited to roofing purposes.

The process of waterproofing dry felt with asphalt is known as saturation. The porosity of each piece of felt must be carefully determined since it is essential to fill these pore spaces substantially with asphalt. Pore spaces left unfilled can take up air and moisture, thereby setting up a disintegration process. The greater the number of filled pore spaces, the higher the weather-resistance of the felt.

By ordinary saturation methods dry felt is passed through a tank of hot asphalt. This is a relatively simple operation used by all manufacturers. The felt so saturated is blackened and filled with sufficient asphalt to meet passable requirements—but *not all of the existent pores in the felt are filled.*

Flintkote adds an extra process, known as Supersaturation, described in detail in the next article.

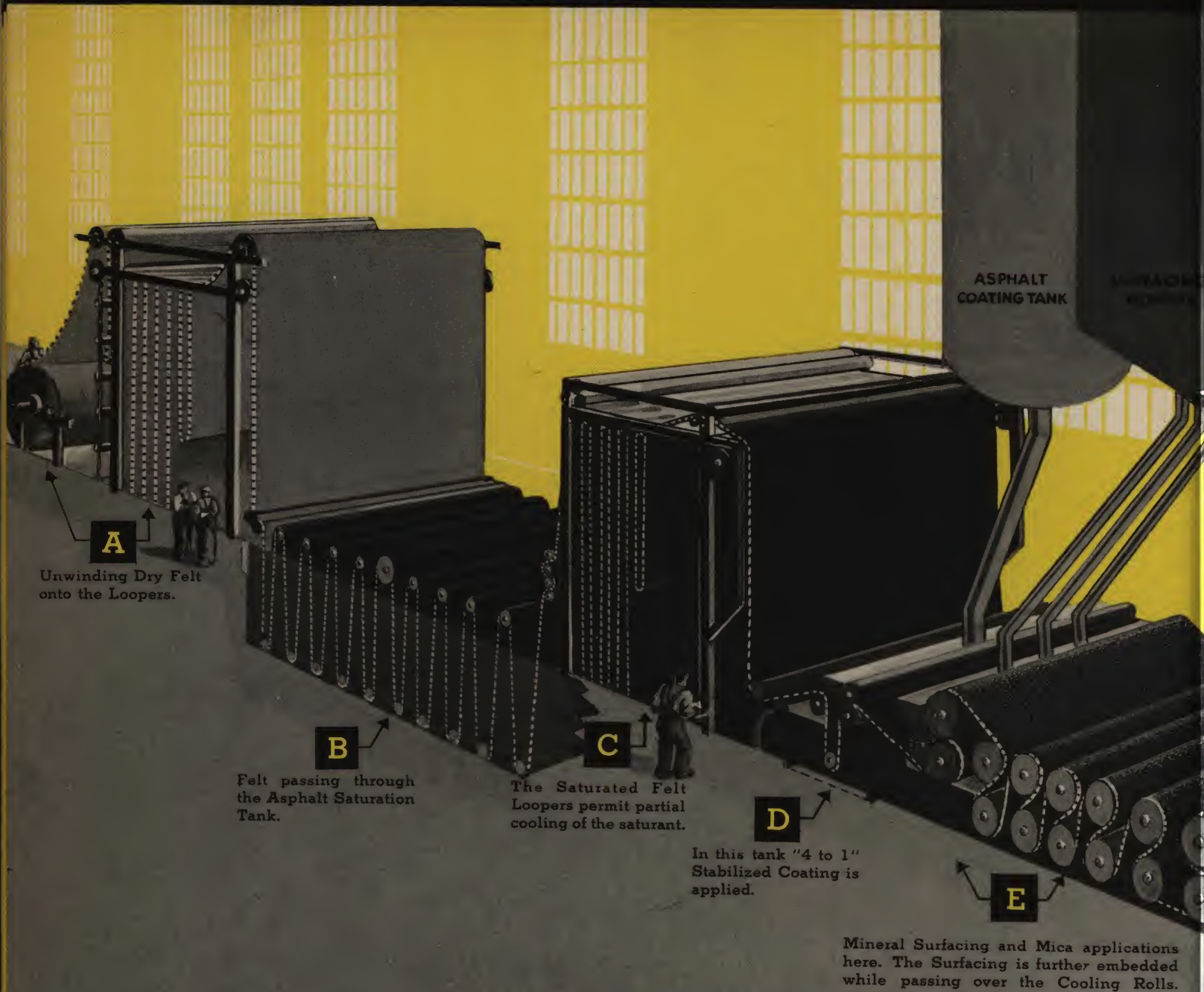
★ ★ ★

BATTERY OF FLINTKOTE ASPHALT CONVERTERS

All asphalt used by Flintkote is prepared and blended in Asphalt Converters similar to those illustrated on the opposite page. After this operation, the asphalt in refined form is used to saturate the raw felt and provide the exposure coating of the roofing.





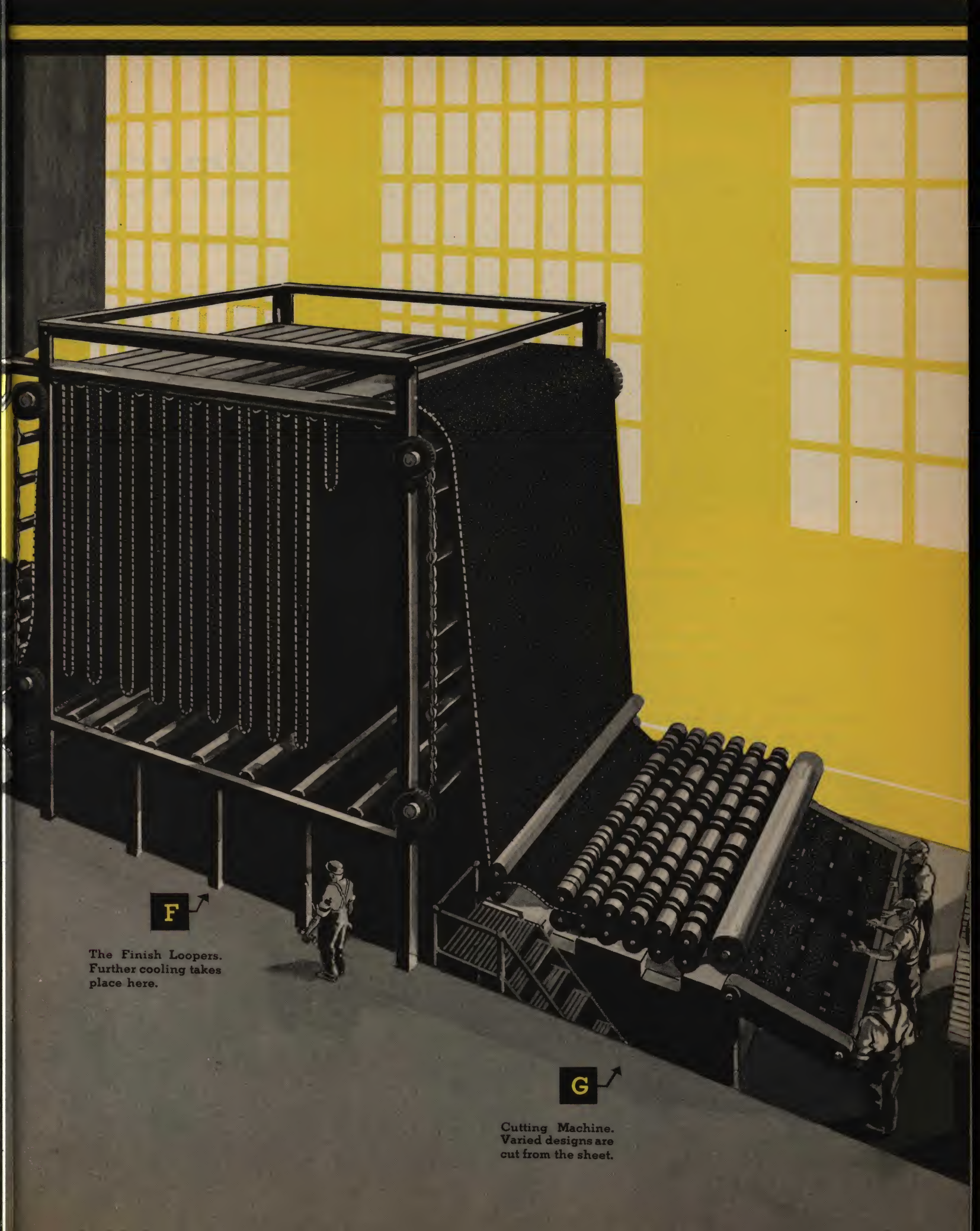


HOW FLINTKOTE ROOFING IS MADE

You will find this artist's drawing helpful in connection with the articles in this book describing the manufacturing processes used in making Flintkote Roofing. For policy reasons the patented Flintkote Supersaturation equip-

ment is not included in the drawing.

The machine shown is 300 ft. long. Normally, it operates at a speed of 250 ft. per minute. During eight hours operation, 20 miles of felt are used to produce 604,800 sq. ft. of roofing.



F

The Finish Loopers.
Further cooling takes
place here.

G

Cutting Machine.
Varied designs are
cut from the sheet.

SUPERSATURATION

An Exclusive Flintkote Process for Extra Protection

Flintkote roofs, 20 years old or more, are to be found in almost every community. Flintkote roofings have always given excellent service. Some of the first Flintkote roofs applied are still in existence today.

Now with the exclusive Flintkote *Supersaturating* method of putting asphalt into felt, still greater durability in Flintkote roofing is provided because Supersaturation starts where ordinary Saturation leaves off.

By ordinary saturation methods the dry felt is carried through hot asphalt saturant. The felt then passes between two rollers which squeeze out some of the saturant. Then coating asphalt is applied, but before this operation is completed, the saturated sheet cools to some extent.

During cooling, the asphalt saturant shrinks, taking in air which replaces part of the saturant. Consequently, some of these unfilled pores take up moisture later when exposed to the weather, causing a fundamental weakness in the roofing.

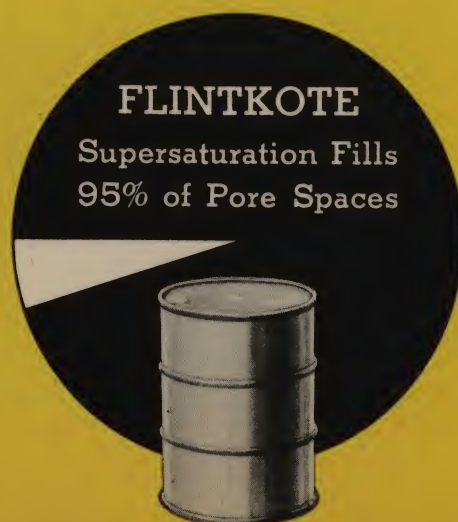
In the Supersaturating process we determine the percentage of pore spaces in the felt and then provide a sufficient excess of saturant to practically fill them.

The Flintkote saturating process uses the usual saturating tank but where this method ends at the squeeze rolls Flintkote Supersaturation really begins. By the use of our exclusive patented equipment *additional saturating* now takes place.

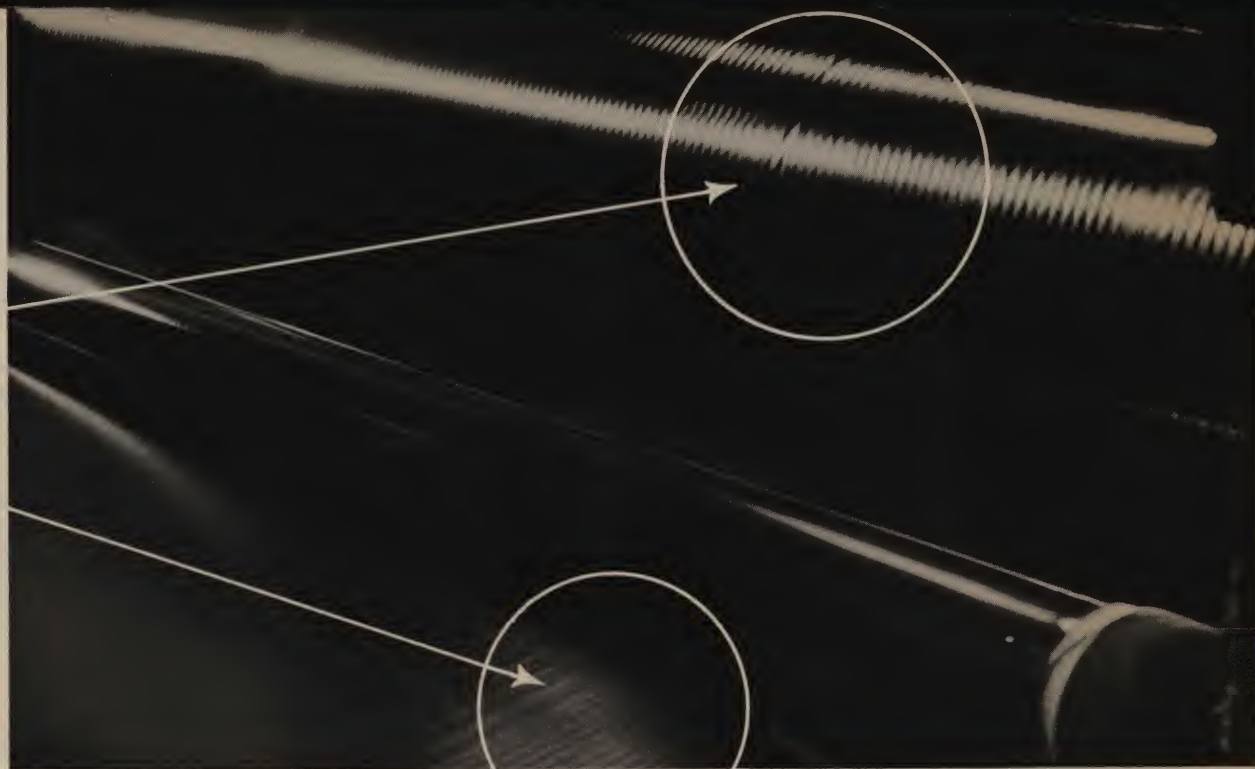
Definite lanes of hot asphaltic saturant are allowed to remain on the hot saturated felt. It is evident that unfilled pores cannot now occur in the same manner as during ordinary saturation methods *because the saturated felt is cooling in the presence of the proper amount of excess saturant.*

The charts below show the inefficiency of ordinary saturation in comparison to the efficiency obtained with Supersaturation. Note that *not more than 80% of the pore spaces* are filled by ordinary saturation, whereas Supersaturation fills *extra pores to approximately 95%.*

By Supersaturation Flintkote fills 15% more pore spaces with asphalt than is possible by ordinary methods. For example, on a roof using 30 squares of Flintkote Giant 12" Strip Shingles this means 40 gallons more of weather-proofing asphalt is built into the roofing than if the felt were saturated by ordinary methods!



Note the definite lanes of hot asphalt saturant that are being deposited on the already hot saturated felt. These lanes of extra asphalt permit the felt to cool in the presence of an excess amount of saturant and fill the pore spaces in the felt with an additional quantity of waterproofing asphalt.



Notice the two shingles shown below. Both were exposed to the weather under identical conditions for 7½ years.

The shingle with the ordinary amount of saturation shows both the coating and surfacing badly disintegrated, especially around the edges.

The Flintkote Supersaturated Shingle, exposed under identical conditions, shows no sign of edge disintegration or loss of surfacing or coating.

The shingle with the ordinary amount of saturation has failed to stand up under the weather, whereas the Flintkote Super-

saturated Shingle is still in excellent shape, ready to give many more years of satisfactory roof protection.

Remember that Supersaturation is an exclusive Flintkote process, fully covered by patents. Supersaturation is one of your strongest talking points in selling Flintkote products for it has definite advantages that mean dollar value to the consumer.

When buying a roof, the consumer should consider his price per year, based on the years of service the roof will produce. That is exactly what Flintkote Supersaturation gives . . . long life at low cost!



Compare this Flintkote Shingle with the ordinary shingle. A convincing proof that Flintkote Supersaturation gives longer life.

FLINTKOTE

ORDINARY

FLINTKOTE "4 to 1" STABILIZED COATING

Shockproof and Weatherproof

After the felt sheet has been Supersaturated with the exact amount of asphalt, it must be given an asphalt coating to seal in the saturant, protect the base from the weather, and retain the mineral surfacing.

There are many types of asphalt that can be used for coating. Naturally they vary in weather-resisting properties. Some deteriorate rapidly — others give longer service. All asphalts give more satisfactory results when properly processed.

A new improved asphalt coating is now used by Flintkote. This coating, made by a process developed in our laboratories, is called "4 to 1" Stabilized Asphalt Coating.

What is the meaning of "4 to 1"? Just this. Flintkote "4 to 1" Stabilized Coating lasts *four times as long* as ordinary asphalt coating under usual and identical weather conditions. Research and roof exposure tests also prove it stronger . . . tougher.

The development of Flintkote "4 to 1" Stabilized Coating is analogous to the improvements made in tires. Until a decade ago, rubber tires seldom gave over 5,000 miles of service. Today the ordinary tire delivers 20,000 or more miles of service.

The improved efficiency performance of tires is due primarily to compounding the rubber so that its physical properties and chemical structure are changed considerably.

Similarly, by compounding special blended asphalts, Flintkote changes the properties of asphalt to provide greater weather-resistance. But greatly increased weatherproofness is not the *only* feature of Flintkote "4 to 1" Stabilized Asphalt Coating; the process also makes the Coating *shockproof*.

Naturally, this shockproof feature is an added asset because the stronger and tougher Flintkote "4 to 1" Stabilized Coating, as a part of the finished roof, is better able to withstand handling in the plant, handling during application, and the contractions and expansions coincident with seasonal temperatures.

To explain fully the superiorities of Flintkote "4 to 1" Stabilized Coating, in non-technical terms, is difficult. To show you how Flintkote Stabilized Coating behaves is easily done by referring you to the photographs on these pages showing

The results of the "Impact Test" demonstrate the superior performance of Flintkote Stabilized Coating in contrast to ordinary coating under identical testing conditions.



FLINTKOTE

ORDINARY

Results of the "Shock Test" further prove the resistance of Flintkote Stabilized Coating in comparison to ordinary coating.



the superior performance of Flintkote Stabilized Coating in contrast to ordinary coating when subjected to identical tests.

The two panels on the opposite page, one with Flintkote "4 to 1" Stabilized Coating, the other with ordinary coating, have both been subjected to the Impact Test.

A steel ball of known weight is allowed to fall from a specified height on the coatings which have been chilled to a low temperature. Notice how the ordinary coating shatters badly, while the Stabilized Coating is dented only in a small area. The resistance of Flintkote Stabilized Coating to impact has been localized . . . similar to the localizing properties of safety glass used in automobiles.

The Shock Test photographs shown above further demonstrate how "4 to 1" Stabilized Coating improves the shatter-resistance of a shingle.

In making the Shock Test, pieces of shingles are chilled to zero temperature. They are then placed in the testing equipment and allowed to slap down, thus sub-

jecting the shingles to a severe shock. The shingle strips in the photographs above were both subjected to the same number of slaps under identical conditions. Note that the top surfacing of the shingle with ordinary coating was almost completely shattered while the Flintkote shingle passed the test with no damage whatsoever.

The Weathering Test further confirms the remarkable wearing qualities of Stabilized Coating. The two test panels mounted on metal shown below had identical weathering. The Flintkote "4 to 1" Stabilized Coating shows no cracking whatsoever, whereas the ordinary coating has developed cracks that extend entirely through to the metal beneath.

These tests and many others made by the use of scientific instruments, prove conclusively the marked superiority of Flintkote "4 to 1" Stabilized Coating to ordinary asphalt coating. You can assure your customers that no form of asphalt coating can give better service than Flintkote "4 to 1" Stabilized Coating.



This "Weathering Test" produced no cracking in Flintkote Stabilized Coating. Note the cracks in the ordinary coating.

SURFACING

THE FINAL SHIELD AGAINST THE WEATHER COMBINES BEAUTY WITH PROTECTION

Now that color has become such an important factor in selling roofs, the real purpose of mineral surfacing on asphalt roofing products is frequently overlooked. This colorful covering does much more than beautify the roof. Its primary use is protection against the weather for the layer of asphalt it covers.

Then too, this surfacing shields the asphalt coating from sunlight. Research has proven that the ultra-violet ray in sunlight is very destructive to asphalt. The mineral surfacing also is of importance since it is fire-resistant. Sparks and brands that fall on it burn out harmlessly.

For these basic reasons mineral surfacings are important. They must be made of the right materials, using the proper sizes, and their colorings must be durable.

Where are such minerals obtained? Their sources are generally known and like most raw materials they are available to all manufacturers. But the secret of good surfacing is knowing what minerals to buy and how to apply them properly.

All mineral surfacings are divided chiefly into two classes . . . finely powdered materials and coarse granular materials. Talc and mica are examples of finely powdered surfacing. Both are used on roll roofings. Mica is also commonly used for surfacing the back of shingles.

The coarse granule surfacings may consist of slate in the natural colors of blue-black, green or red, or they may be colored granules of various types made upon any one of numerous base rocks.

When mineral surfacing was first applied to asphalt shingles the granules were available in only a few natural colors. Flintkote, however, soon visualized the vital importance of the use of vari-colored granules in making roofing more attractive.

PIONEERS IN COLOR

As a result, The Flintkote Company pioneered the developing of highly colored granules which retain their beauty indefinitely. Years of experimenting and patient research with various types of base rocks, color pigments and pigment vehicles were necessary to build a background of experience prior to actual production operations. Flintkote engineers and research men had to solve two basic problems; namely . . . assured fastness of the color itself, and, secondly, the bonding of the color properly to the granule.

PROVED . . . THEN USED

After Flintkote was certain the right color process had been developed, these methods were carried out in Flintkote plants under the continuous supervision of our engineers who had pioneered their development.

This process for coloring granules has been so highly developed by Flintkote that our first colored granules applied to roofing over ten years ago still retain their fastness of color!

After Flintkote developed new color combinations by using colored granules, other shingles began to appear on the market with the so-called "painted granule".



SILO FOR STORING
GRANULES

This Roofing Machine operation shows the Mineral Surfacing being applied to the hot asphalt coating. The Surfacing is then firmly embedded in the coating by pressure.



This is a short-cut attempt to compete with the Flintkote colored granule. As its name implies, the color of a painted granule is a film of paint on the base rock. This film of color on some painted granules withstands practically no weathering and within a few years the roof begins to fade. The color is washing off instead of staying on the roof.

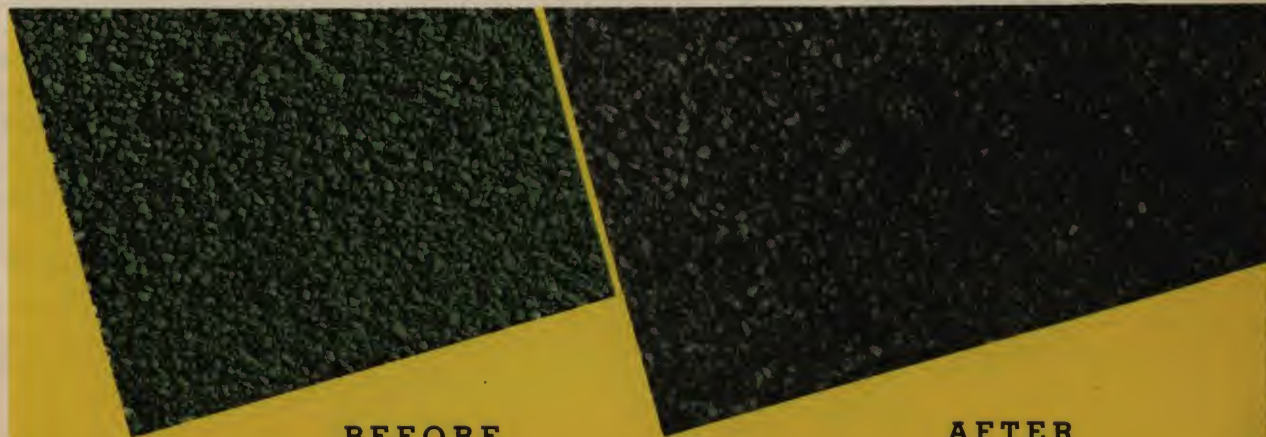
The colored granules used by Flintkote are the result of years of research and practical manufacturing experience. We have not found any better way to color granules—even though we know there are many cheaper processes available. Flint-

kote granules have withstood the test of time and comparison and have given Flintkote acknowledged leadership in beauty and variety of color.

By every test Flintkote granules give positive protection and lasting beauty. Like every other material used in the manufacture of Flintkote products, they are the result of extensive research and continuous development work.

You will be interested in knowing in more detail how Flintkote Research and Development work is carried out. Its interesting story of accomplishment is briefly told on the next few pages.

These Before and After photographs clearly illustrate how color washes off some painted granules. The first photograph was taken before exposure to the weather—the photograph at the right shows the same shingle after only a year's exposure. The washing off of the color is obvious.



BEFORE

AFTER

DEVELOPMENT AND RESEARCH

It can be safely stated that no manufacturer in the roofing industry has contributed major developments in so great a measure as The Flintkote Company.

Flintkote was among the earliest of roofing manufacturers to transform the unsightly asphalt surfaced and exposed material into a more attractive product by the use of granular material embedded in the black coating. This paved the way for another progressive step . . . Flintkote being among the first to introduce individual Shingles and improved Roll Roofings.

Following this, Flintkote developed and patented the Strip Shingle, which in a few years revolutionized the entire roofing industry, and vastly extended the market for asphalt shingles.

Other fundamental developments that are the result of Flintkote Research have previously been described: namely, the perfection of colored granules; Supersaturation, a landmark in the roofing industry; and Stabilized Coating, which increases the life of asphalt 400%. Today over 500 patents are owned by Flintkote relating to asphalts and asphalt products.

The main laboratories of The Flintkote Company are devoted to continuous experiment and production control work, and are maintained with an appropriate staff in a separate two-story building at Rutherford, N. J.

The Flintkote Laboratory is provided with the most modern equipment available. New equipment is being added constantly, as improved scientific appliances are perfected.

Among the many types of testing machines are "Weather-Ometers" which give the effect of years of roof wear in a relatively short time. This machine duplicates the action of sunshine; produces heat, rain, frost, and other conditions that cause roofing deterioration.

By means of these tests, roofings of all kinds are continuously subjected to more weather abuse in a few days than the ordinary roofing receives during years of exposure on the roof. Weather-Ometer studies have naturally produced many improvements in roofing quality.

Supplementing the scientific Weather-Ometer tests, and other tests of durability, under severe and changing weather conditions, The Flintkote Company maintains large outdoor exposure decks both at Rutherford, New Jersey, and New Orleans, Louisiana. These tests show how Flintkote products withstand exposure under the extremes of Northern and Southern climatic conditions.

The results of all Flintkote Research benefit the consumer by giving him roofing of greater value—a roofing made with every advantage that Science can provide.

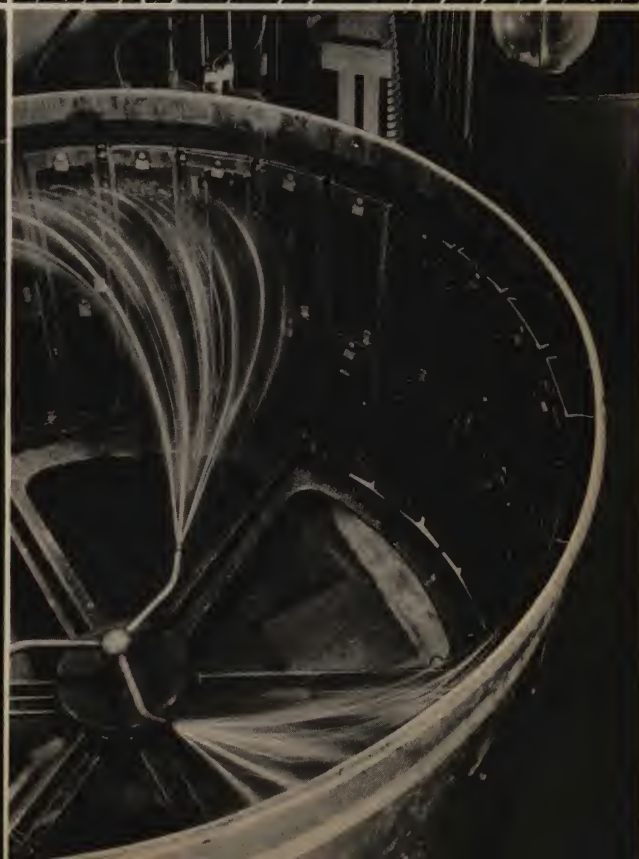
Many major developments in the roofing industry were produced in this Flintkote Laboratory.



In these Roof Deck exposure tests Flintkote products are continuously tested by actual exposure to the extremes of climatic conditions.



A few days in these Weather-Ometers equals years of ordinary roofing exposure. The ultra-violet arc light in the first machine parallels the action of strong sunlight. The water under high pressure in the machine at the extreme right simulates driving rain. Note the panels of roofing on the inside walls of the Weather-Ometers.



CERTIFICATE OF QUALITY



Today's market contains many brands. In many instances they have the same general outward physical characteristics.

How, then, can you judge which brand of roofing will deliver the years of satisfactory service you demand for your customers?

Flintkote's Certificate of Quality on all Shingles, 90 pound Mineral Surfaced Roll Roofing, and Rex Flintkote Roll Roofing, is a statement of plain, unvarnished *Facts*.

Flintkote lists the materials that actually go into the making of roofing and backs this statement with a company name that has been synonymous with integrity for thirty-five years.

The Flintkote Certificate *lists basic standards* that determine quality on roll roofing and shingles. It is a written warranty that our product is exactly what we represent it to be. Consequently, the consumer buys with confidence because the Certificate of Quality *honestly identifies the product*.

The Certificate is a challenge to price and the answer to those roofings designated as "Just as good". It is of real value to the consumer and for his own protection. Stress this exclusive Flintkote feature so that he fully realizes that Flintkote is not to be confused with the ordinary types of Roll Roofing or Shingles.

Certificate of Quality

We Hereby Certify:

That in the manufacture of 12" GIANT STRIP SHINGLES, only the very best materials are used and are combined in those proportions which produce the highest quality roofing, as shown below:

FELT (UNSATURATED)	approx.	36.87	pounds
ASPHALT SATURATION (195%)	"	71.85	"
ASPHALT COATING	"	66.86	"
MINERAL SURFACING and BACKING	"	71.42	"
PACKAGE	"	10.00	"

AVERAGE APPROXIMATE SHIPPING WEIGHT **257.00 pounds**

The base or fabric of this roofing consists of felt, having an average normal dry weight of 78 pounds, or bone dry weight of 75 pounds, to 480 square feet. The asphalt saturation absorbed by this felt is equal to approximately 195% of its weight. The shipping weight averages 257 pounds.

CERTIFICATE OF INSPECTION

Flintkote's insistence on quality is not limited to the control of raw materials alone. It goes further by *insuring* a product of uniform quality far in excess of standard requirements.

Flintkote inspection is not executed in the customary manner of a periodic check-up. During the manufacture of every Flintkote Shingle 39 tests are continuously carried out.

In the Flintkote system every man on the roofing machine has been thoroughly trained in inspection work. The Supervising Inspectors are experts in their field, factory trained, and chosen only because they are thoroughly grounded in the subject of roofing in its entirety.

These Supervising Inspectors are trained in the *customer's viewpoint* and are extremely exacting in looking for imperfections. They report the result of their findings daily and independently to the management.

Only one grade of Flintkote is ever shipped . . . the first grade which bears the Flintkote Certificate of Inspection.

This Certificate is placed on all Flintkote roofing products . . . it means they are in the best possible condition and bear a distinguishing characteristic . . . Quality.



Certificate of Inspection

This Product has been carefully manufactured from highest grade materials and given thorough inspection at the factory.

10103135

If it is unsatisfactory for any reason whatever, return this certificate with sample of the material to your dealer, who will communicate with us.

GUARANTEES

Obviously, no guarantee is worth more than the paper it is written on unless the company behind it is financially responsible.

Many consumers fail to appreciate the significance of this fact. They also overlook the important point that no guarantee will restore money spent for an inferior roof if the company issuing the guarantee is out of business before the period of the guarantee has expired.

Although Flintkote is selling roofing quality and not guarantees, every Flintkote product carries a guarantee that goes far beyond the issuance of a signed statement.

The value of a Flintkote guarantee is the roofing itself. This product reputation has been earned by 35 years of business experience so that Today the name Flintkote is a symbol of stability and integrity.

Although Flintkote is ready to issue guarantees, *very few customers request them!* This buying faith is based on the knowledge that Flintkote products have demonstrated that they will outlast, by many years, the guarantee period.

The buying judgment of the consumer should be based, *not* upon the length of the guarantee but instead upon the *service record* of the roofing.

Many of the first Flintkote roofs are still giving satisfactory service. A twenty-year-old Flintkote roof is not uncommon! In fact, twenty years, although not guaranteed, is frequently exceeded.

When a customer so requests, he is given the Guarantee shown at the left, signed by an officer of The Flintkote Company.

All Flintkote Shingles and Brick Siding Strips are guaranteed for 10 years from the dates of application. Certain types and weights of Roll Roofings are guaranteed for periods of 5, 7½, and 10 years.

★ ★ ★

A TYPICAL TESTIMONIAL OF FLINTKOTE, DURABILITY

After applying 44 Flintkote Roofs, Bert Combee & Son, Builders, sent us the letter reproduced on the opposite page.

Builders, contractors, and roofers know from experience what constitutes a high grade roofing material. They work with roofing and build their business reputations on its quality. If anything goes wrong they are the first to hear about it. The best workmanship in the world cannot overcome the handicaps of inferior roofing materials.

This typical letter, like many in our files, shows why Flintkote holds and enjoys the unquestioned approval of so many leading merchandisers in the building industry.



GUARANTEE

On payment of bill at maturity, we hereby guarantee within the time limits of this guarantee, that, provided the following described materials have been applied in accordance with the printed directions that accompany each package, should the

25 Squares Green THIKBUT Strips

(Insert here the quantity and kind of materials, exactly as listed and shown on the reverse side hereof)

as listed on the reverse side hereof be not entirely waterproof due to any manufacturing defect of material, we will replace the defective material in proportion to the unexpired period of this guarantee.

However, nothing herein shall be construed as imposing in any way any liability on The Flintkote Company or its subsidiaries for the failure of the above material to remain waterproof as the result of causes beyond its control nor for any damage to any building upon which such material shall be applied or to the contents thereof; and nothing herein shall be construed as guaranteeing in any way the workmanship in applying the materials herein guaranteed, or rendering The Flintkote Company responsible in any way for defects caused by faulty workmanship in application.

Any claim hereunder must be made to The Flintkote Company, at its office at New York, N. Y., within thirty days after discovery of the defects, at which time samples of such defective material should be forwarded and a sufficient opportunity given The Flintkote Company to determine its responsibility.

Date of termination.....November 1, 1945

THE FLINTKOTE COMPANY

By *C.W. Gregg*

New York, N. Y., November 1, 1955

This guarantee will become valid only when date of termination is inserted and guarantee is signed by an authorized officer of The Flintkote Company at its executive office at New York City.

(ORIGINAL)

BERT COMBEE & SON
BUILDERS

HOUSES FOR SALE ON EASY TERMS

190 East 4th St., Clifton N. J.

February 28, 1935

The Flintkote Company
East Rutherford, New Jersey

Gentlemen:

We used Flintkote strip shingles for the first time in the Spring of 1921 on two houses, Nos. 261 and 263 Harding Avenue, Clifton, New Jersey. They proved to be very satisfactory, so in the Fall of 1921 we used Flintkote 10 inch square butt, green strip shingles on our own home, No. 190 East Fourth Street, Clifton, New Jersey, at which place we have now lived for thirteen years. During that entire period of time the roof has not required the least bit of repairing. The shingles have kept their original texture and color, and from all indications will remain so for several years to come.

Since building our own home, we have built forty-nine houses and several garages, all covered with asphalt shingles. On forty-four of these houses Flintkote square butt, either 10 or 12 inch, strip shingles were used and not one of these forty-four roofs has given us trouble in any way and the shingles have proved to be satisfactory both to builder and owner.

Having been connected with the building business for the past thirty-three years, and having had experience with various kinds of roofing materials, we believe we are qualified to highly recommend Flintkote square butt shingles.

Very truly yours,

BERT COMBEE & SON

By: *Bert Combee*

Yours very truly,
THE PHIL MARQUARD REAL ESTATE
AND BUILDING COMPANY
Phil Marquard
Phil Marquard

The success we have had from Flintkote products we think is in a big way due to the help given us by the manufacturer in the form of advertising and sales assistance. The personal aid given by the sales representatives. The combination of manufacturer and representatives with the dealer cooperation of manufacturer and representatives with the dealer is hard to beat.

Our experience with Flintkote products has, in all respects, been very satisfactory and we look forward to selling them in the years to come.

Yours truly,
Strable Lumber & Salt Co.
L. Strable
Pres.

GUARANTEE AGAINST CURLING



THE FLINTKOTE COMPANY

ASPHALT SHINGLES AND ROOFINGS

NEW YORK CINCINNATI BOSTON NEW ORLEANS CHICAGO ATLANTA DETROIT

GUARANTEE AGAINST CURLING

1. Should any of the products covered by the guarantee to which this rider is attached curl within a period of ten years after they have been applied upon a roof having a slope of not less than 4" in 12" (when such application has been in accordance with our printed directions) we will replace all such curled shingles or make such other reasonable adjustment as circumstance may warrant. The expense of such replacement or adjustment, including labor and material, shall fall upon THE FLINTKOTE COMPANY in proportion to the unexpired portion of the guarantee period.

2. That there may be no misunderstanding, the term "curling" as herein used, means the substantial lifting up or "self-elevation" of the exposed lower ends of the shingles, and especially of their lower corners, in such manner and from such causes as to make that condition relatively permanent.

3. In case of complaint, reasonable opportunity shall be given THE FLINTKOTE COMPANY to determine its responsibility hereunder previous to the removal of such shingles from the roof.

The laboratory analysis of "curled" shingles reveals that this condition is due directly to undersaturated felt. This failure in roofing is not so much due to putting incorrect amounts of asphalt in the felt but is instead caused by incompletely filling the pore spaces in the felt itself.

Originally an undersaturated shingle may appear to be just as good as a *Supersaturated* shingle. After a few years, however, the exposed edges began to curl.

This is what happened. Either a large number of the felt pore spaces had not been filled with asphalt or at best only partially filled. Moisture got into these pores and the felt at the edge of the shingle began to open. As the felt opened moisture was absorbed. Before long, the edges of the felt lost most of the saturant and by now were not completely waterproofed.

The alternate absorption of moisture and drying lifted the corners of the shingles until the exposed parts curled badly.

The Brand Y Shingles shown above,

applied in 1923, began to curl in 1925. Curled shingles were taken from the roof in 1929 and an analysis made of the tabs in the unexposed areas. Flintkote Supersaturated shingles, which had undergone identical weather exposure, were given the same laboratory tests.

The following values for efficiency of saturation indicate the importance of properly saturating dry felts.

EFFICIENCY OF SATURATION			
Curled Shingles (Brand Y)		Non - Curled Shingles (Flintkote)	
Exposed	Unexposed	Exposed	Unexposed
59.3%	71.4%	88.4%	95.0%

The unexposed portions indicate the efficiency of saturation of the original shingle. Because the original saturation efficiency was 95% in the Flintkote Shingle no curling occurred, while in the Brand Y Shingle with an original saturation of 71.4%, pronounced curling resulted. Flintkote backs its *Supersaturation* process by the Guarantee above.

RESISTANCE TO WIND

No type of roofing can absolutely defy the devastating effects of hurricanes, tornadoes, and other high wind storms. Flintkote roofs, however, have given an exceedingly good account of themselves under such circumstances because they are constructed and designed to give maximum resistance to strain. In fact, they have remained intact while roofs on neighboring houses have failed.

Acme Photo



CONRAD LUMBER COMPANY
(INCORPORATED)
DEALERS IN
LUMBER AND BUILDING MATERIAL
DELAND, FLORIDA

October 22nd,
1935

SUBJECT:

The Flintkote Company,
R.C.A. Building,
50 West 50th Street,
New York City.

Gentlemen:

It might be interesting to you to know that the Flintkote roof recently applied on the Womens' Club Building was one of the very few in my territory which held water during the recent wind and rain storm. The wind reached a velocity of eighty miles an hour here and the rain was terrific but Flintkote shingles came through without mishap on all our jobs.

Yours very truly,

CONRAD LUMBER COMPANY,
By *[Signature]* Manager.

RCS: hfp



FIRE RESISTANCE

Everyone has a horror of fire. This is readily appreciated, for fire is an ever-threatening menace, striking with little if any warning.

Most fires are due to carelessness. It is almost a form of criminal carelessness to live in a home with a dry, combustible roof that menaces life and property. Such roofs, with their inherent fire hazards, endanger the whole community. They are prey to sparks and burning brands; consequently innumerable fires start on these dry combustible roofs.

Flintkote Mineral-Surfaced Shingles and Roll Roofings give the home-owner a fire resistant roof. They bear the Board of Fire Underwriters' Class C rating. Fire Insurance Companies recognize with lower insurance rates, in most communities, the *Fire Safety* in Flintkote Mineral Surfaced Roofs.


Not only do Flintkote Mineral Surfaced Roofings resist the dangers of flying sparks and burning brands, but they also retard interior fires. Under heat from the interior the roofing amalgamates to form an air-tight seal, producing a blanket-like effect that precludes air-drafts and smothers interior fires.

The home-owner who delays applying a fire-resistant roof gambles with his home, the lives of his family, and his household effects. Countless homes have been saved from this greedy, swift destroyer by Flintkote Mineral Surfaced Roofings.

FIRE LOSSES IN THE UNITED STATES IN 1934

10,000 persons burned to death
 $\frac{2}{3}$ of this number burned to death in residences
 $\frac{1}{3}$ of all people burned to death were children under 10 years of age
 20,000 people were seriously crippled or badly burned
 \$263,000,000 property loss
 \$10,000,000 property loss from sparks falling on roofs
 \$30,000,000 property loss from exposure to other buildings on fire
 In the last 25 years 167,000 people burned to death in residences
 \$4,407,000,000 property value destroyed by fire in the last ten years.

[National Fire Protection Association figures.]



BAILEY LUMBER COMPANY
INCORPORATED
BUILDING MATERIAL

LOCK BOX 336
 BLUEFIELD, W. VA.

Bailey Lumber Company,
 Bluefield, W. Va.

Gentlemen:

E. L. BAILEY, President

T. E. PEERY, Vice Pres.

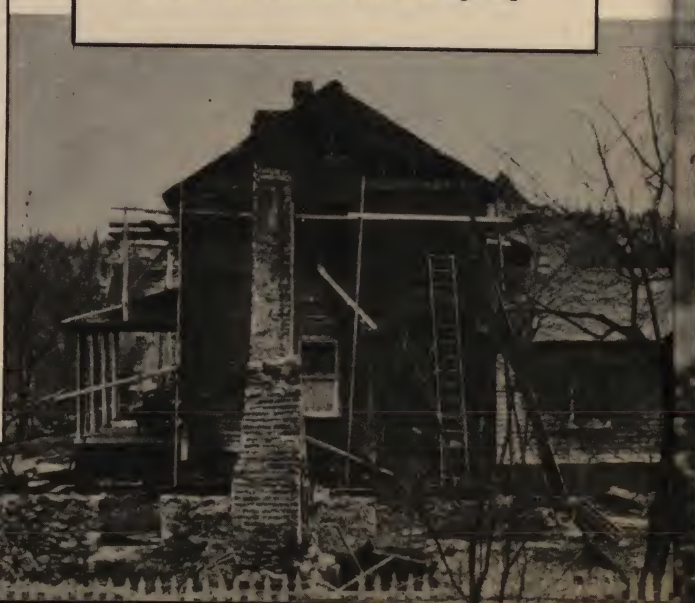
GEO. DUNLISON, Jr., Secretary

TELEPHONES 22 & 345-H

ROUGH & DRESSED LUMBER
 SHIMS, DOORS & BLINDS
 LIME, PLASTER, CEMENT
 SEWER PIPE & SEWER BLOCK

I am a Contractor, residing at Freeman, West Virginia, and recently built a house for Mr. Hall at Bramwell, purchasing Rex Flintkote Strip Shingles from you. Last Sunday, this house caught fire from an adjoining house which was burned to the ground. The roof of Mr. Hall's house did not burn, although the sheeting and rafters underneath were badly damaged by the fire. This is the most remarkable demonstration of the fire resisting qualities of roofing I have ever seen. I am using Rex Flintkote Strip Shingles on all the houses I build, as I consider the fire resisting feature worth while, to say nothing of the first class quality of the shingle in general.

Yours truly,
S. H. Tabor



"AUTOMATIC" SPRINKLER CORPORATION OF AMERICA



MANUFACTURING AND INSTALLING
"AUTOMATIC" "INTERNATIONAL"
"MANUFACTURERS" AND "NIAGARA"
APPROVED DEVICES
FOR THE
AUTOMATIC CONTROL OF FIRE
NEW YORK OFFICES
123 WILLIAM STREET,
UNDERWRITERS BUILDING, NEW YORK, N.Y.

OFFICES
IN ALL
PRINCIPAL CITIES

Flintkote Co., Inc.,
100 E. 42d St.,
New York City.

Dear Sirs:

I have used a great many of your roofing shingles on my farm buildings at Greendell, N. J., and on a horse barn, built about four years ago, according to my superintendent's report, they gave a splendid account of themselves during a fire which destroyed the barn on January 6th last.

He claimed that these shingles acted as a blanket to prevent any particularly spectacular fire, holding the fire down so that it just broke out through windows and sides until the supports of the roof gave way, when it settled on the burning hay and straw and blanketed it for quite a while - in fact, the fire was quite burned out before the shingles gave way.

In the hay loft, directly under the roof, there were about 100 tons of hay and straw, and the feed bins were full of oats.

I am now rebuilding the barn, and Mr. William I. Houghton, of Newton, N. J., has the contract, and I have requested that the same roof be put on as was on the former barn.

Feeling that you would be interested in the results which my Superintendent reports following this fire, I am writing you, and if you wish further particulars, my superintendent, W. H. Haines, Greendell, N. J., will be glad to give you his views after personally watching the fire.

Yours very truly,

E. L. Thompson
Chairman of the Board.

ELT.FJM

THE NEW FLINTKOTE SHINGLE PACKAGE!

A Real Merchandising Innovation

Flintkote leads with a new package for Shingles that will speed sales for you.

Consider a typical situation. Can the average passer-by identify the material on the job as asphalt shingles? Hardly, unless he takes the initiative and locates a readable label. Even then he does not know *who* supplied the material.

An Efficient Silent Salesman, the *new* Flintkote Shingle package, performs this important selling for you on the job.

It is a billboard display, easily readable at a distance, so that passers-by get the

message: "These Flintkote Asphalt Shingles were Sold by Smith-Jones Company, Anytown, U. S. A." *You* are identified as local headquarters for Flintkote roofing materials.

These shingle packages have distinction, striking colors, and are attractively designed. Your name and address are included on every package by the addition of a label that identifies you as headquarters for Flintkote Shingles.

Flintkote's Certificate of Quality is prominently displayed on these shingle packages. This statement of plain, unvarnished *Facts* lists the materials that actually go into the making of the roofing. Consumers appreciate this honest identification of the product.

Aside from their display and business building features the *new* Flintkote Shingle package has many practical advantages in your display room and warehouse. Easier to handle and identify for inventory purposes . . . Minimizes shipping errors and mistakes on the job . . . Protects the shingles from cutting . . . Seals in the product and protects against damage by dirt, mildew, or moisture.

The *new* Flintkote Shingle package will be available for packing certain products in the very near future.





Protects the
Shingles...

Displays your
Name...

Sells on the
Job...!

SOLD BY
**SMITH-JONES
COMPANY**

**ANYTOWN
U.S.A.**

Your name and address on every pack-
age. A label that identifies you as local
headquarters for Flintkote Shingles.



The handy Rex Rip Opener. Jerk the cord—the roll is open. Simple. Safe. Speedy. An exclusive Flintkote feature.



Silent Salesmen...
Neat, Clean Rolls...
Modern Packages...!

MODERN PACKAGES FOR ROLL ROOFING

EXCLUSIVE FEATURES INCREASE SALES AND PROFITS

The Flintkote Roll Roofing packages have already been modernized. They are neat and clean, colorful and practical. Dealers everywhere pay enthusiastic tribute to their demonstrated business-building features.

Wrapped in heavy gray Kraft paper, these Flintkote Roll Roofing packages testify to the accuracy of the slogan: "Merchandise well displayed is half sold!"

Their durable gray wrappers are distinctive and highly serviceable. Exhaustive tests prove they minimize handling stains. These modern packages with their high visibility and effective display values are a marked improvement over ordinary Roll Roofing packages.

The Certificate of Quality, an exclusive copyrighted feature, is prominently displayed on the attractive label on 90 pound Mineral Surfaced Roll Roofing and Rex Flintkote Roll Roofing.

This written warranty lists the materials

that actually go into the making of the roofing. Consumers buy with confidence because the Certificate of Quality honestly identifies the product.

The Rex Rip Opener is an added and *exclusive* Flintkote feature on all Roofing, Felts, and Building Papers. The Rex Rip Opener saves time, money, and material for the user of roll roofings.

The Rex Rip Opener is simple and speedy in operation. A cord runs lengthwise inside the wrapper with the ends secured by markers: "Rex Rip Opener". Grab the cord at either end of the roll—a quick pull—and the roofing is ready for use without any danger of cutting so common when the roll roofing package is opened with a knife.

The many selling advantages of these Flintkote Roll Roofing packages are exclusively yours to increase *your* Roofing Sales and Profits.

COLORS
THAT
LAST

•

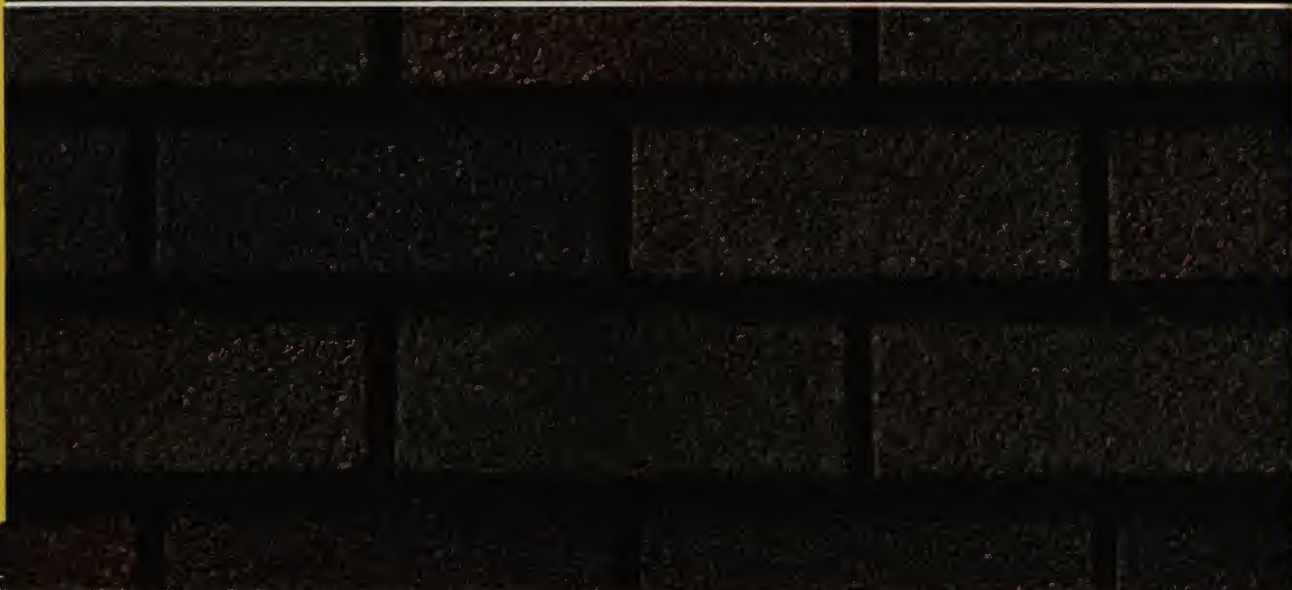
STYLE
THAT
SELLS



SETAB STRIP SHINGLES • CANYON GREEN



10" REXTAB STRIP SHINGLES • AUTUMN RED



THIKBUT STRIP SHINGLES • MOTTLED GRAY





A FEW
OF
FLINTKOTE'S
MANY
COLORS



GIANT INDIVIDUAL SHINGLES (American Method) TILE RED



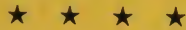
DOUBLE COVERAGE HEXAGON STRIP SHINGLES • CLOVER GREEN



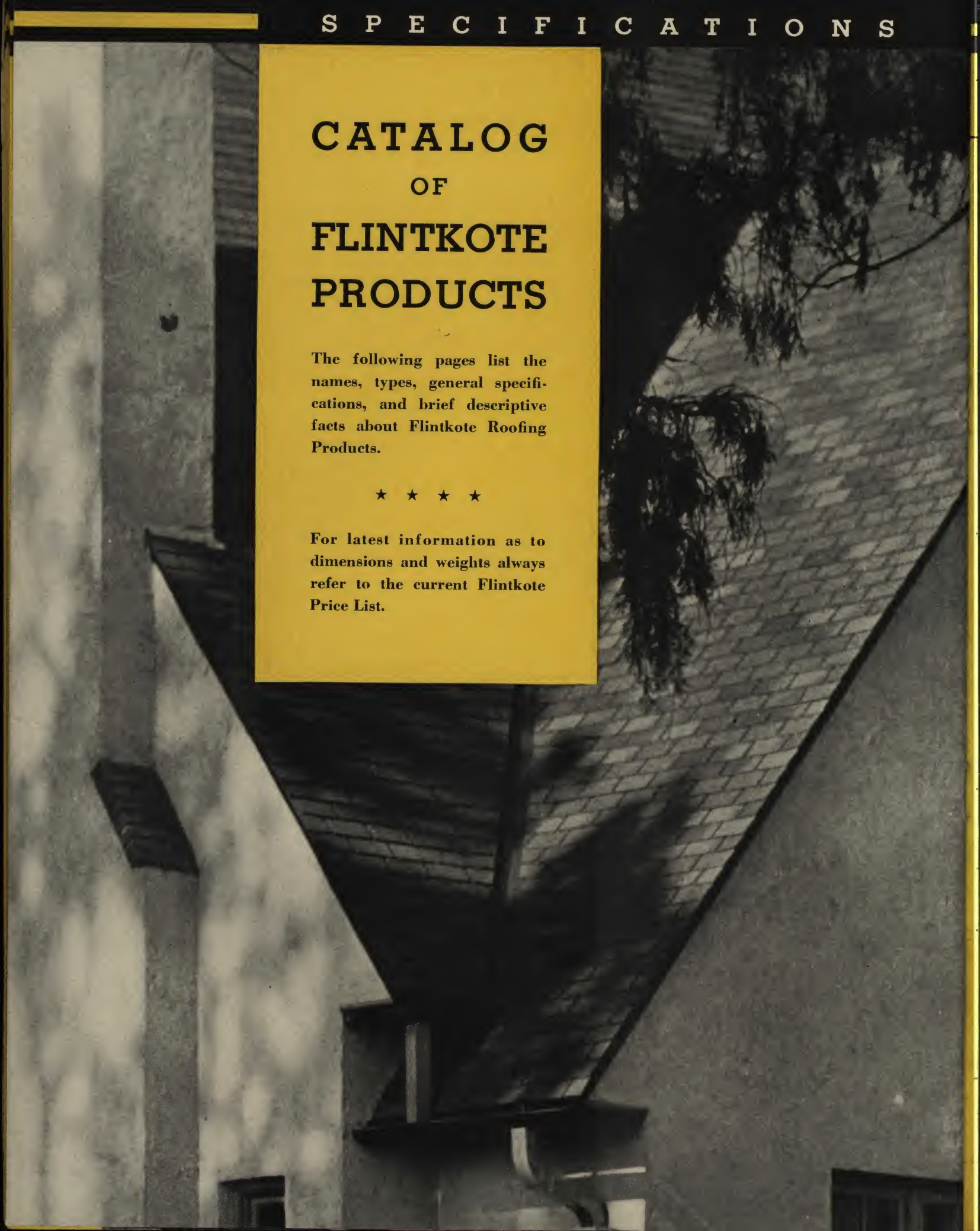
SETAB STRIP SHINGLES • CANYON BROWN

CATALOG OF FLINTKOTE PRODUCTS

The following pages list the names, types, general specifications, and brief descriptive facts about Flintkote Roofing Products.



For latest information as to dimensions and weights always refer to the current Flintkote Price List.

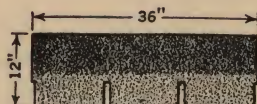


Under- writers Label	Exposure (Inches)	Headlap (Inches)	Strips per Square	Av. Approx. Wgt. per Square
----------------------------	----------------------	---------------------	-------------------------	--------------------------------------

FLINTKOTE STRIP SHINGLES

THIKBUT STRIP

Thikbut Strip—outstanding in appearance and value. Laminated in construction, built-up with extra layers of asphalt coating and mineral surfacing on the exposed tabs, to provide increased resistance to the weather. Superior features are:



1. Added Life—double layers of asphalt and mineral surfacing on front of tabs.
2. Added Beauty—deeper shadow lines and richer colors.
3. Added Weight—65% of the weight of shingle on the exposed area, the tabs, where it is needed most.
4. Added Thickness—25% thicker giving greater protection—smoother laying.
5. Added Economy—80 Thikbut Strip Shingles cover one square of roof area—require fewer nails.

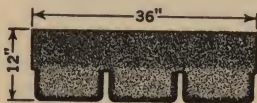


Cross-section of a Thikbut Shingle showing double tab construction.

SETAB STRIP

Setab Strip—built up on front and back of tabs with an additional layer of asphalt and mineral surfacing... sealing all exposed edges and imprisoning the asphalt saturant... greatly increasing the life of the shingle.

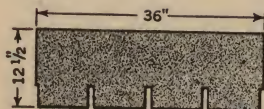
Wherever ruggedness and custom-built appearance are desired, Setabs are recommended.



Cross-section of a Setab Shingle showing extra heavy thickness of the tab.

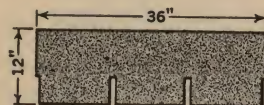
12½" STRIP

12½" Strip. Has a 4½" headlap. This gives double thickness over the entire roof and triple thickness at the tabs. Because of this double and triple coverage 12½" strips give maximum weather protection.



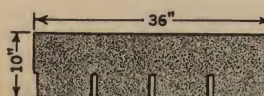
12" GIANT STRIP

12" Strip. Made on a giant felt. This permits a 5" tab exposure, hence fewer strips to apply per square than ordinary shingle strip (specifically those which do not incorporate any double tab construction). This provides for lower application costs.



10" STRIP

10" Strip—is of standard weight felt construction with a 4" tab exposure. A very popular, inexpensive strip shingle giving excellent roof protection.



FLINTKOTE STRIP SHINGLES

Under-writers Label	Exposure (Inches)	Headlap (Inches)	Strips per Square	Av. Approx. Wgt. per Square
---------------------	-------------------	------------------	-------------------	-----------------------------

C	5 1/4	3	76	227
---	-------	---	----	-----

C	4 2/3	3	86	235
---	-------	---	----	-----

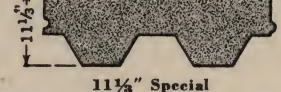
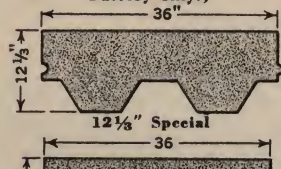
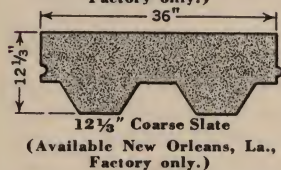
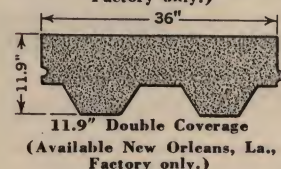
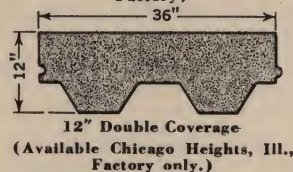
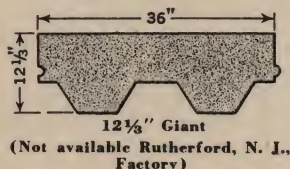
C	4	4	100	218
---	---	---	-----	-----

C	3.8	4.3	105	229
---	-----	-----	-----	-----

C	4 2/3	3	86	215
---	-------	---	----	-----

C	4 2/3	3	86	186
---	-------	---	----	-----

C	4 2/3	2	86	167
---	-------	---	----	-----



HEXAGON STRIPS

Hexagon Strips—are designated by two general classifications, namely "Giant" made on extra heavy felt and "Special" made on a standard weight felt. A third classification is the "Double Coverage" made on standard weight felt.

The general features of all Flintkote Hexagons are the same:

Hexagons have a self-aligning device on the ends of each strip for speed and ease in application. The design of this aligning device also prevents the back flow, onto the roof beneath, of any water that may be driven between the joints of adjacent shingles.



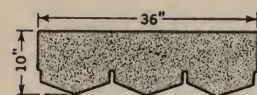
The specific differences in Hexagons are felt weights and the general dimensional specifications of the shingles. These specifications determine the number of square feet of material in the shingle, exposure, and head lap. The greater the head lap, the greater the protection.

Hexagons are priced moderately and lend themselves to the more inexpensive types of construction.

10" REXTAB STRIP

10" Rextab Strip. A modified strip shingle produced by redesigning the tab. The diagonal cut of the tab coupled with a 4" exposure (other cut tab shingles usually have 4 1/2" to 5" exposure) offers resistance to wind pressure and for this reason the tab has less tendency to lift. This advantage, plus unique appearance, makes Rextab a very popular strip shingle. Ideal for roofing small houses and an excellent siding shingle.

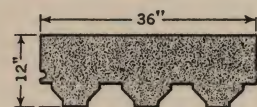
(Not available at New Orleans, La., Factory.)



12" SKYLINE STRIP

12" Skyline Strip. An exclusive design in strip shingles. Forms an interesting roof pattern and lends itself especially well to small roof areas. Gives double protection over the entire roof area.

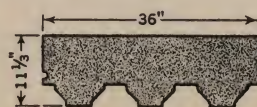
(Available Chicago Heights, Ill., Factory only.)



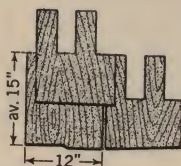
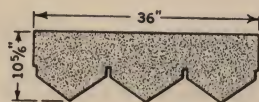
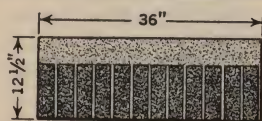
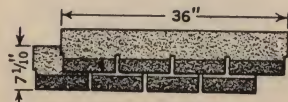
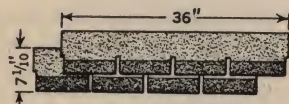
11 1/3" SKYLINE STRIP

11 1/3" Skyline Strip. Of the same general features as the 12" Skyline Strip except that it is narrower in width, has a greater exposure, and less headlap, with fewer strips to apply per square.

(Available at Chicago Heights, Ill., Factory only.)



Under-writers Label	Exposure (Inches)	Strips or Shingles per Square	Av. Approx. Wgt. per Square	FLINTKOTE SIDINGS	
	3 3	134 134	210* 160†	<p>THIKBRIK SIDING</p> <p><i>Thikbrik Siding.</i> The same type of construction as Thikbut Strip Shingles, namely, of laminated construction with an extra layer of asphalt and mineral surfacing on the front of the tabs. Recessed mortar lines and mineral texture give the appearance of real brick.</p> <p>Made in two weights:</p> <p>210 lb, coarse mineral surfacing; 160 lb, fine mineral surfacing.</p> <p>Thikbrik Siding insulates and effects a saving in fuel. It also eliminates periodic painting, another economy feature appealing to the home owner.</p> <p>Easy to apply, moderate in cost, assimilates brick. Thikbrik Siding can be used for new buildings or for repair and modernization.</p>	
	3 3	131 131	230* 210†	<p>SETAB BRICK SIDING</p> <p><i>Setab Brick Siding.</i> Made in the same manner as Setab Shingles, i.e., double tab construction with an additional layer of asphalt coating and mineral surfacing. The tab edges are sealed. The mortar line is deeply recessed to give the appearance of brick.</p> <p>Made in two weights:</p> <p>230 lb, double-coated and with fine surfaced minerals front and back; 210 lb, double-coated and with fine surfaced minerals front and back.</p>	
	9	44	140*	<p>SOLDIER COURSE SIDING</p> <p><i>Soldier Course Siding.</i> A strip with the brick facings in a vertical position. Used as the starting course or breaker course with brick sidings.</p>	
	3		†	<p>BRICK SIDING CORNER PIECES</p> <p><i>Brick Siding Corner Pieces.</i> Designed to furnish corners for Brick Siding application. Average approximate weight is 32lb per bundle. Packed 50 pieces to a bundle (12½ lineal feet vertically).</p>	
	5 1/6	77	149*	<p>REXTAB SIDING</p> <p><i>Rextab Siding.</i> Exclusive in design. The shape of the tab and position of the nails assure a smooth wall surface. Rapid application. Tabs are laid to a point which is easier than centering wide curved or straight lined butts . . . only 77 strips are required per square. If face nails are used (copper nails), only one in each tab is necessary instead of two or more as used in some sidings.</p>	
	7		211*	<p>CEDARTEX SIDING</p> <p><i>Cedartex Siding</i> is an individual siding shingle built up on the front with an extra layer of stabilized asphalt coating and an extra mineral surfacing. The butt is trimmed to give an appearance of varying shingle length and the surface is finished with a wood grain effect.</p>	
Square Feet per Roll	Length of Roll	Width of Roll	Av. Approx. Weight per Roll	<p>BRICK ROLL SIDING</p> <p><i>Brick Roll Siding.</i> An economical siding providing an attractive brick effect. Each roll contains four strips 8" wide.</p> <p>(Available Chicago Heights, Ill., Factory only.)</p>	
118⅔	44½	32	105		

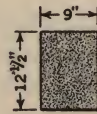


(Available at Rutherford N. J., Factory only.) † (Not available at New Orleans, La., Factory.) ‡ (Not available at Chicago Heights, Ill., Factory.)

FLINTKOTE INDIVIDUAL SHINGLES

Under-writers Label	Exposure (Inches)	Headlap (Inches)	Strips or Shingles per Square	Av. Approx. Wgt. per Square
C	4	4½	379	253
C	5	6	226	325
C	4⅔	5⅔	147	211
C	3 Sidelap	2	113	162
C	2½ Sidelap		82	135
C	8	3	70	138
C		3¼ Sidelap	77	138
C		3 Sidelap	90	138

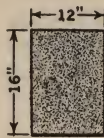
STANDARD INDIVIDUAL



Standard Individual. A small size individual shingle made on standard weight felt.

The cost of applying the 379 shingles required for one square of roof area limits the use of Standard Individuals as a roof shingle. Applied mainly as hip and ridge shingles for other types of shingles.

SUPER GIANT

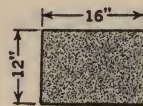


Super Giant ("AMERICAN METHOD"). Made on an extra heavy weight felt which makes them nearly twice as thick and heavy as standard weight shingles. When Super Giants are applied by the "American Method" with a 5" exposure, in accordance with our printed instructions, they give triple-roof thickness, except between the spacings of the shingles and at that point double thickness, thereby providing maximum protection.

Because Super Giants are available in a wide range of colors and are applied individually, a roof of any color combination can be worked out. Also used extensively for re-siding.



Super Giant ("WIDE SPACE" METHOD). On old roofs, Super Giants can be applied in the "Wide Space" manner, which requires about 35% less shingles to cover a square as compared with the "American" Method. Also used extensively for re-siding.

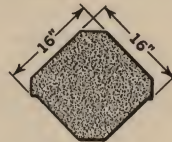


DUTCH LAP Giant. A Super Giant Shingle applied with the long side laid horizontally to the weather. The exposed edge of the shingle is secured to the immediate underlying shingle by the use of a special copper clip.

Only 113 shingles are required to cover one square, making the application cost relatively low.

Dutch Laps give excellent weather protection having a 3" side lap and 2" head lap. The copper clip locks down the exposed part of the shingle securely, preventing any possibility of its lifting under wind pressure. For use only over the old roof. Also used extensively for re-siding.

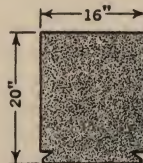
STAPLE LOX



Staple Lox. Of pleasing hexagonal design. Exposed edges locked with copper staples for smooth laying and resistance to high winds. Recommended for application over old roofs.

(Available New Orleans, La., Factory only.)

SHURLOK



Shurlok. An economically priced shingle, recommended for old roofs. Lays very flat. Only 70 shingles per square.

Shurloks give a shadow line visible from any angle. Being "wide-space" in application, the shingles tend to form valleys down the middle which promote better drainage.

(Not available at New Orleans, La., Factory.)

FLINTLOCK

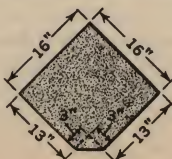


Flintlock. An authentic design for the French method of application.

Its locking device provides double security from wind driving upwards and sidewise on the roof.

Application is swift and accurate. The double lock, plus a 3¼" side lap makes Flintlock a very safe roofing shingle. Recommended for application over old roofs.

REXLOX

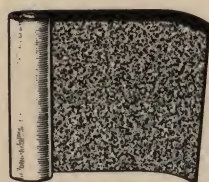


Rexlox. A protective and durable French type of locking shingle, with a 3" side lap and head lap. Locks securely to the roof by a special key fastener, protected from the weather. Easy to apply. Recommended for application over old roofs. (Available New Orleans, La., Factory only.)

Square Feet per Roll	Length of Roll	Width of Roll	Av. Approx. Wgt. per Roll
108	36'	36"	90
108	36'	36"	75
111	37'	36"	90
128	48'	32"	105
128	48'	32"	105
128	48'	32"	105

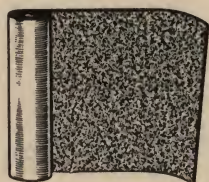
FLINTKOTE ROLL ROOFINGS

MINERAL SURFACED



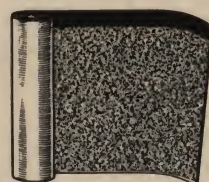
90 LB. MINERAL SURFACED

90 Lb. Mineral Surfaced Roofing. Produced with the same mineral quality and texture as shingles in a variety of attractive colors. Used where a good roofing at low cost is desired for industrial and farm buildings, garages, etc. Also used extensively as a roof valley material. Selvage edge. Carries the Underwriters Class C Label. *Certificate of Quality with each roll.* Has Rex Rip Opener.



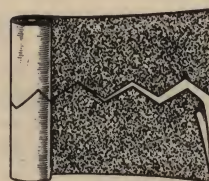
75 LB. MINERAL SURFACED

An economical mineral surfaced roofing produced in several colors, fine quality but lighter in weight. Fixtures included. Has Rex Rip Opener. (Available at Chicago Heights, Ill., Factory only.)



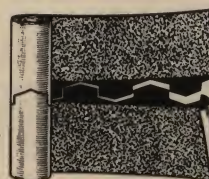
MINERAL SURFACED—Blind Nailing

A heavy colored mineral surfaced roofing with 3" selvage edge for application in blind nailing methods. 2 pint cans of Quick-Set Lap Cement, nails, and directions included. Carries the Underwriters Class C Label. Has Rex Rip Opener. (Not available at Chicago Heights, Ill., Factory.)



DIAMOND POINT

Diamond Point Roofing. A distinctive, cut roll roofing in a selection of mineral colors. Made from the same heavy stock as 90lb Mineral Surfaced. The design gives a "diamond point" pattern on the roof. For use over old roofs only. Carries the Underwriters Class C Label. Has Rex Rip Opener. (Not available at Rutherford, N. J., Factory.)



SHADOW POINT

Shadow Point Roofing. An exclusive design of mineral surfaced roofing packed similarly to Diamond Point. The shade tips contrast with the colors on the outer portion of the roll giving a very pleasant effect to the roof. Widely used as an inexpensive re-roofing product. For use over old roofs only. Carries the Underwriters Class C Label. Has Rex Rip Opener. (Available at Chicago Heights, Ill., Factory only.)



STYLE "A"

Style "A" Roofing. The new "step edge" design gives popular acceptance to this mineral surfaced roll roofing product. The tips are available in either the regular plain colors or shaded. For use over old roofs only. Carries the Underwriters Class C Label. Has Rex Rip Opener. (Available at Chicago Heights, Ill., Factory only.)

FLINTKOTE ROLL ROOFINGS

SMOOTH SURFACE

Square Feet per Roll	Length of Roll	Width of Roll	Av. Approx. Weight per Roll
-------------------------	-------------------	------------------	-----------------------------------

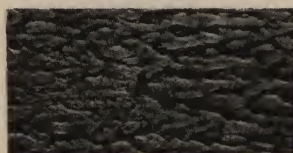
108	36'	36"	55 65 75
-----	-----	-----	----------------



REX FLINTKOTE

Rex Flintkote Roofing. A new super-grade reversible roofing, made with Rayflex Finish on one side and Corrugated Finish on the other. Lay either side up. Recommended wherever the best is wanted. Packed with RexScrew Nails and 2 pints of Fibrex Lap Cement. Carries Underwriters Class C Label on all weights. Certificate of Quality on each roll. Has Rex Rip Opener.

108	36'	36"	35 45 55 65
-----	-----	-----	----------------------

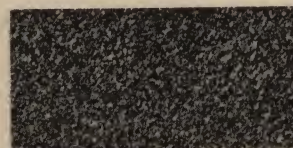


STALWART

Stalwart Roofing. High quality roofing with corrugated gunmetal finish. Made to meet high standards of U. S. Government and Railroad Specifications. Carries Underwriters Class C Label on 45lb, 55lb, and 65lb weights. Has Rex Rip Opener.

Stalwart Roofing is not available in 35 lb rolls at New Orleans, La., Factory.

108	36'	36"	35 45 55 65 75
-----	-----	-----	----------------------------



RELIANCE

Reliance Roofing. A durable, smooth roofing surfaced on both sides with mica for maximum protection. For use when a good, durable, moderately priced roll roofing is desired. Carries Underwriters Class C Label on 55lb, 65lb, and 75lb weights. Has Rex Rip Opener.

108	36'	36"	40 50 60
-----	-----	-----	----------------



ALLWEATHER

Allweather Roofing. An attractive, smooth roofing, surfaced with fine ceramic granules. This granular surfacing besides lending color to the roofing gives added weather protection and resistance to fire. Has Rex Rip Opener.

108	36'	36"	35 45 55
-----	-----	-----	----------------



GUARDIAN

Guardian Roofing. A well-made corrugated roofing with talc finish. Moderately priced. Has Rex Rip Opener.

Square Feet per Roll	Length of Roll	Width of Roll	Av. Approx. Weight per Roll	BUILDING PAPERS, SHEATHING, FELTS
500 500	166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ '	36" 36"	25 30	<p>ASPHALT SHEATHING</p> <p>Made of strong jute paper stock, asphalt saturated but uncoated. Used beneath the sheathing and siding of buildings; between floors and under roofings of all types, to preclude the infiltration of air.</p> <p>No heads or accessories. Packed with Rex Rip Opener. (Asphalt Sheathing is available in 30 lb rolls at Rutherford N. J., Factory only.)</p>
200	66 $\frac{2}{3}$ '	36"	50	<p>HOUSE SHEATHING</p> <p>An efficient sheathing for use in side walls, under floors, and all types of roofs to prevent the infiltration of air.</p> <p>Packed with Rex Rip Opener—no accessories. (Available at Chicago Heights, Ill., Factory only.)</p>
250 250 500 500	83 $\frac{1}{3}$ ' 83 $\frac{1}{3}$ ' 166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ '	36" 36" 36" 36"	17 $\frac{1}{2}$ 25 35 50	<p>BLACK WATERPROOF PAPER</p> <p>A high grade sheathing and insulating paper manufactured from strong jute paper stock, saturated and coated with special asphalts. Used as an insulator under roofings, sheathings, and between floors; lining for export packages, refrigeration, etc.</p> <p>No heads or accessories. Packed with Rex Rip Opener.</p>
500	166 $\frac{2}{3}$ '	36"	20	<p>BLUE ROSIN SHEATHING PAPER</p> <p>An unsaturated paper, sized with rosin, economical for insulation where waterproofness is not a requirement.</p> <p>(Available at New Orleans, La., Factory only.)</p>
500 500 500 500 500	166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ '	36" 36" 36" 36" 36"	20 25 30 35 40	<p>RED ROSIN SHEATHING PAPER</p> <p>An inexpensive, unsaturated paper sized with rosin for sheathing and insulating where waterproofness is not essential.</p> <p>The chief use of Red Rosin Paper is for the temporary protection of floors in building construction.</p> <p>(Red Rosin Sheathing Paper is not available in 35 lb rolls at Rutherford, N. J., Factory.)</p>
250 500	83 $\frac{1}{3}$ ' 166 $\frac{2}{3}$ '	36" 36"	22 44	<p>THREADED FELT</p> <p>A tar saturated felt reinforced with thread. For use where a waterproof sheathing of unusual strength is required.</p> <p>(Available at Chicago Heights, Ill., Factory only.)</p>
450 450 450 450	150' 150' 150' 150'	36" 36" 36" 36"	37 $\frac{1}{2}$ 50 75 100	<p>DEADENING FELT</p> <p>Manufactured from rag stock. Used as a sound deadener and insulator of walls and floors, and for lining refrigerators. Packed with Rex Rip Opener.</p> <p>(Deadening Felt is available in 100 lb rolls at Chicago Heights, Ill., Factory only.)</p>
500 500 500	166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ ' 166 $\frac{2}{3}$ '	36" 36" 36"	20 25 30	<p>K-B SHEATHING PAPER</p> <p>A low-cost building paper made by a new process. Asphalt is introduced during paper-making process. Fibres in the centre of the sheet are thoroughly surrounded and protected from the weather.</p> <p>(Not available at Chicago Heights, Ill., Factory. Available at New Orleans, La., Factory in 20 lb rolls only.)</p>

FLINTKOTE PROTECTIVE PRODUCTS

Container	Content	Av. Approx. Shipping Weight
Can	5 Gal.	45
Can	1 Gal.	55
Can	6 to Case	80



ASPHALT PAINTS AND PLASTICS

Lap Seal. A blend of liquid asphalts possessing strong adhesive properties. The purpose of Lap Cement is to make a water-tight bond between the laps of roll roofing to protect nails from rust and to seal the edges of the roll roofing. Lap Cement is not recommended for any other purpose. (Applied by brush.)

Drum	55 Gal.	517
Drum	30 Gal.	289
Can	5 Gal.	48
Can	1 Gal.	60
Can	6 to Case	



STATIC COATINGS

Static Roof Coating. A fibrated asphalt emulsion, low priced and long lasting. When applied to the roof, it forms a pure, unbroken, and staple asphalt film that will not flow or alligator. Excellent as a protective coating for metal, composition, and smooth-surfaced asphalt built-up roofs. The average quantity for covering one square is 2 gallons for smooth or mineral composition roofs and 3 gallons for metal roofs. (Applied by brush.)



Static Protective Coating. Same as Static Roof Coating, with the fibre omitted. Low in cost and especially adaptable for the enduring protection of all metal, masonry, and other surfaces exposed to the action of the elements. The covering capacity for Static Protective Coating is slightly more than for Static Roof Coating. (Applied by brush.)

Average Approximate Shipping Weight

Container	Red	Green	Gray
55 Gal.	578	571	627
30 Gal.	322	318	349
5 Gal.	53	52	58
1 Gal.	67	66	72
Case of 6			



ALBIKOTE PROTECTIVE COATING

Albikote Protective Coating. Ideal protective coating for asphalt roofs and all types of side walls where decorative effect is desired. Requires only water for thinning. (Applied by brush.)

Container	Content	Av. Approx. Shipping Weight
Drum	55 Gal.	490
Drum	30 Gal.	270
Can	5 Gal.	44
Can	1 Gal.	58
Can	6 to Case	



ASPHALT PAINTS AND PLASTICS

Roof Coat. Manufactured from specially refined blended asphalts to which are added preservative oils and rock asbestos fibre. For recoating and rejuvenating old asphalt composition roofs. The preserving oils of the Roof Coat penetrate the old dried-out roofing, imparting new life to the base of the roofing.

For resurfacing all types of old smooth-surface asphalt roofs, whether steep or flat. Also for waterproofing, dampproofing and rustproofing purposes.

Average quantity to cover one square:

Smooth metal roofs 1 gallon
 Smooth composition roofs 1½ gallons
 Mineral-surfaced composition roofs 2 gallons
 (Applied by brush.)



Asphalt Coating. Same as Roof Coat, with the exception that the asbestos fibre has been omitted. Used only where the asphalt roofing has started to show signs of weathering. Also as general utility product for coating metal surfaces; and waterproofing and dampproofing foundation walls.

The covering capacity of Asphalt Coating is slightly more than for Roof Coat. (Applied by brush.)



Flintkote Plastic Cement. Made from special elastic asphalts, combined with preservative oils and asbestos fibre. For ready patching or for any other purpose requiring a waterproof cement. Excellent for emergency repairs. Widely used as a flashing product. (Applied by trowel.)

Sq. Ft. per Roll	Length of Roll	Width of Roll
9	36'	3"
		4 Rolls per carton



ROOF TAPE

Roof Tape, a tough cotton tape saturated with asphalt. For use with Static Protective Coating and Static Roof Coating in waterproofing and sealing seams, breaks, and holes in metal and composition roofs.

FLINTKOTE

BUILT-UP ROOFING MATERIALS

The market for Built-Up Roofing is large and the possibilities for profit are attractive. Countless factories, apartment houses, hotels, and office buildings in your area require roofing in the form of felts, built up ply by ply, and cemented with a bituminous waterproofing agent for weather protection. Your familiarity with the basic principles of Built-Up Roof construction given in this section will help you make sales in this important branch of the industry.

Flintkote specifications are provided for the following types of built-up roofing:

1. Smooth Surfaced Viskalt Roofs
2. Crushed Slate Surfaced Asphalt Roofs
3. Gravel or Slag Surfaced Asphalt Roofs
4. Coal Tar Felt and Pitch Roofs Surfaced with Slag or Gravel

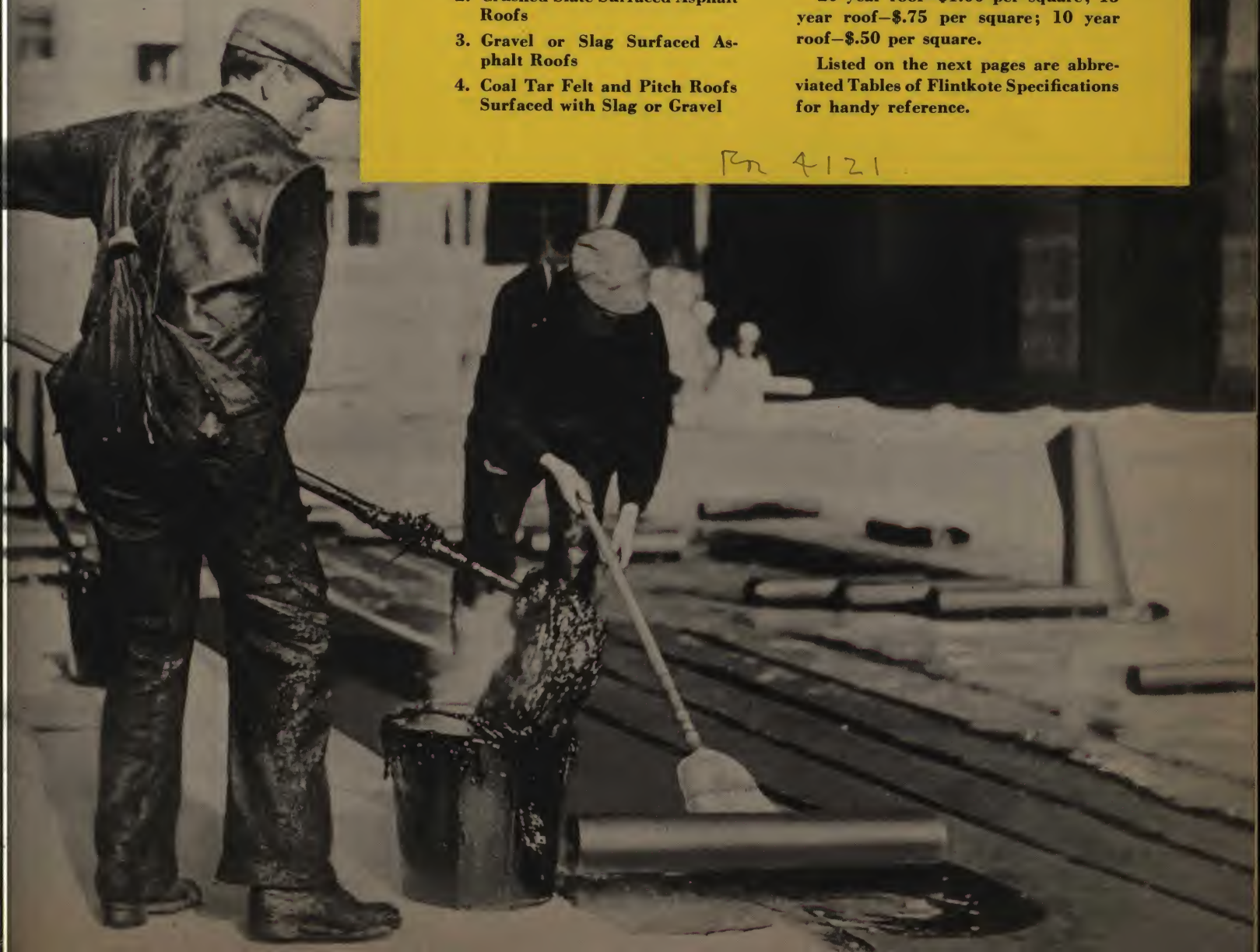
Flintkote furnishes bonds on the various types of specifications listed in accordance with the following provisions. The roof must be applied by an approved Flintkote Franchise Roofer in strict accordance with specifications. The bonding procedure including the filing of the Bidding Notice, Contract Notice, and Request for Bond must be followed.

The job must be inspected by a Flintkote Inspector who will file a final Inspection Report together with the roofer's Request for Bond and remittance for bond charge. Bond charges (in addition to price of material) are:

20 year roof—\$1.00 per square; 15 year roof—\$.75 per square; 10 year roof—\$.50 per square.

Listed on the next pages are abbreviated Tables of Flintkote Specifications for handy reference.

Rn 4121



TABULATED SPECIFICATIONS FOR

Period of Bond—Years	Specification Designation	Limitations of roof incline in inches per foot	Construction				Material Weights in Pounds													Weight Per Square (Lbs.)				Underwriters Classification
			Surface finish	Number of Plies of Felt	Layers of Bitumen	Primer	Sheathing Paper	Base Sheet	Asphalt Felt	Tarred Felt	Rex Construction	Cap Sheet	Asphalt	Pitch-	Viskalt	Static Roof Coating	Gravel	Slag	Smooth	Mineral Surfaced	Gravel Surfaced	Slag Surfaced		
Standard Specifications for Non-combustible Decks																								
20	A-1-C	¾ up to 6	Viskalt	{ Five 15-lb. felts (Viskalt) }	6	9*			81						180				270				C	
20	A-2-C	3 up to 9	Mineral	{ Three 15-lb. felts (Viskalt) Rex Construction }	5	9			49	110		150							318				C	
20	†A-3-C	¼ up to 3	Gravel or slag	{ Four 15-lb. felts (asphalt) }	5	9*			65			180				400	300		654	554		A		
20	†A-4-C	¼ up to 2	Gravel or slag	{ Four 15-lb. felts (tar) }	5				65			200				400	300		665	565		A		
15	B-1-C	¾ up to 6	Viskalt	{ Four 15-lb. felts (Viskalt) }	5	9			65					150				224				C		
15	†B-2-C	3 up to 9	Mineral	{ Two 15-lb. felts (asphalt) Rex Construction }	4	9			32	110		120						271				C		
15	†B-3-C	¼ up to 3	Gravel or slag	{ Three 15-lb. felts (asphalt) }	4	9*			49			150				400	300		608	508		A		
15	†B-4-C	¼ up to 2	Gravel or slag	{ Three 15-lb. felts (tar) }	4				49			175				400	300		624	524		A		
10	†C-1-C	¾ up to 6	Viskalt	{ Three 15-lb. felts (asphalt) }	4	9			49					120				178				C		
10	†C-1-C-C	¾ up to 3	Cap sheet	{ Three 15-lb. felts (asphalt) One 34-lb. cap sheet }	4	9			49			34	120					212				C		
10	C-1-C-E	¾ up to 6	Static roof coating	{ One 30-lb. felt (asphalt) Two 15-lb. felts }	4	9		32	32			90			30			193				C		
10	†C-2-C	3 up to 9	Mineral	{ One 15-lb. felt (asphalt) Rex Construction }	3	9			15	110		90						224				C		
10	†C-3-C-S	3 up to 6	Slag or gravel	{ Four 15-lb. felts (asphalt) }	5	9*			65			125				325	250		524	449		C		

*Primer required only on gypsum decks.

†Over rigid insulation or over steel decks with at least ½-in. layer of insulation any specification marked "†" may be used, provided that on all decks having inclines of over 3 in. per foot provision for nailing is made.

VARIOUS TYPES OF BUILT-UP ROOFING

Period of Bond—Years	Specification Designation	Limitations of roof incline in inches per foot	Construction			Material Weights in Pounds														Weight Per Square (Lbs.)				Underwriters Classification
			Surface finish	Number of Piles of Felt	Layers of Bitumen	Primer	Sheathing Paper	Base Sheet	Asphalt Felt	Tarred Felt	Rex Construction	Cap Sheet	Asphalt	Pitch	Viskalt	Static Roof Coating	Gravel	Slag	Smooth	Mineral Surfaced	Gravel Surfaced	Slag Surfaced		
Standard Specifications for Under Promenade Tile																								
10	C-1-P	Up to 1	Tile	{ Five 15-lb. felts (asphalt)	6	9			81				180						270					
10	C-4-P	Up to 1	Tile	{ Five 15-lb. felts (tar)	6				81				200						281					
Standard Specifications for Wood or Precast Gypsum Decks																								
20	A-1-W	¾ up to 6	Viskalt	{ One 34-lb. base sheet Four 15-lb. felts (Viskalt)	5			34	65					150					249				C	
20	A-2-W	3 up to 9	Mineral	{ One 34-lb. base sheet Two 15-lb. felt (Viskalt) Rex Construction	4			34	32	110		120							296				C	
20	A-3-W	¼ up to 3	Gravel or slag	{ One 30-lb. felt (asphalt) Three 15-lb. felts (asphalt)	4			32	49			140				400	300		621	521		A		
20	A-4-W	¼ up to 2	Gravel or slag	{ Five 15-lb. felts (tar) One sheathing paper	4		5		81			150				400	300		636	536		A		
15	B-1-W	¾ up to 6	Viskalt	{ One 34-lb. base sheet Three 15-lb. felts (Viskalt)	4			34	49				120					203				C		
15	B-2-W	3 up to 9	Mineral	{ Three 15-lb. felts (asphalt) Rex Construction	4				49	110		120						279				C		
15	B-3-W	¼ up to 3	Gravel or slag	{ One 30-lb. felt (asphalt) Two 15-lb. felts (asphalt)	3			32	32			110				400	300		574	474		A		
15	B-4-W	¼ up to 2	Gravel or slag	{ Four 15-lb. felts (tar) One sheathing paper	3		5		65			125				400	300		595	495		A		
10	†C-1-W	¾ up to 6	Viskalt	{ One 30-lb. felt (asphalt) Two 15-lb. felts (asphalt)	3			32	32				90					154				C		
10	†C-1-W-C	¾ up to 3	Cap sheet	{ One 34-lb. base sheet Two 15-lb. felts One 34-lb. cap sheet	3			34	32			34	90					190				C		
10	C-1-W-E	¾ up to 6	Static roof coating	{ One 30-lb. felt (asphalt) Two 15-lb. felts (asphalt)	3			32	32				60		30			154				C		
10	C-2-W	3 up to 9	Mineral	{ Two 15-lb. felts (asphalt) Rex Construction	2				32	110		60						202				C		
10	C-3-W-S	3 up to 6	Slag or gravel	{ Five 15-lb. felts (asphalt)	5				81			125				325	250		531	456		C		

FLINTKOTE BUILT-UP ROOFING MATERIALS

Sq. Feet Per Roll	Length of Roll	Width of Roll	Av. Wt. Per Roll	Wt. Per 100 Sq. Feet
----------------------	-------------------	------------------	---------------------	----------------------------

VISKALT SATURATED FELT



Viskalt Saturated Felt (in weights required for Flintkote Bonded Roofs)—A superior saturated rag felt, specially processed to obtain a very high asphalt saturation content.

14- and 15-lb. Viskalt Felts are used in a specified number of plies (3- or 4-ply over non-combustible roofs, 4- and 5-ply over wood decks), cemented in place with asphalt or Viskalt (a special asphalt of higher grade), and surfaced with gravel. In some cases additional plies of felt are used and the gravel is omitted, where a smooth surface is desired.

30-lb. Viskalt Felt is especially used as a base felt over wood decks with 2 or 3 plies of 14-lb. or 15-lb. felt cemented over it with asphalt or Viskalt and surfaced with gravel or left with a smooth Viskalt surface, depending upon the specification used. Packed with Rex Rip Opener.

15-lb. Viskalt Felt is available in 216 sq. ft. rolls at Rutherford, N. J., Factory only.

432	144'	36"	60	14
432	144'	36"	65	15
216	72'	36"	65	30
216	72'	36"	33	15

ASPHALT SATURATED FELT

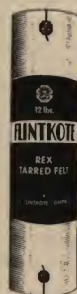


Asphalt Saturated Felt. Available in two weights, 12-lb. and 24-lb. Used mostly for small reroofing jobs where a bond is not required. Packed with Rex Rip Opener.

Not available in 216 sq. ft. rolls at New Orleans, La., Factory.

432	144'	36"	52	12
216	72'	36"	52	24

REX TARRED FELT



Rex Tarred Felt—A rag felt saturated with refined coal tar. In the 14-lb. and 15-lb. weights, Tarred Felt is used in conjunction with coal tar pitch to form built-up roofs on flat areas.

A roof of this type, however, is limited to an incline of 2" per foot and is never of the smooth surface type—always with gravel or slag surfacing to prevent the slipping of the coal tar pitch at high summer temperatures.

This type of roof is Bondable when 14-lb. or 15-lb. felt is used and applied according to specifications.

The 12-lb. tarred felt is used only on small jobs not requiring a bond and where economy must be considered. On all built-up roof jobs of tarred felt construction, coal tar pitch must be used as the cementing agent. Packed with Rex Rip Opener.

Rex Tarred Felt is packed in half rolls at Rutherford, N. J., Factory only.

432	162'	32"	52	12
432	162'	32"	60	14
432	162'	32"	65	15
216	81'	32"	26	12
216	81'	32"	33	15

VISKALT CAP SHEET



Viskalt Cap Sheet—Coated one side only. When used as a cap sheet it provides a smooth surface for the built-up roof. May also be used as a base over which 14-lb. or 15-lb. felts are applied. Contains 2 squares per roll. Packed with Rex Rip Opener.

216	72'	36"	68	34
-----	-----	-----	----	----

Sq. Feet Per Roll	Length of Roll	Width of Roll	Av. Wt. Per Roll	Wt. Per 100 Sq. Feet
108	36'	36"	55	110

FLINTKOTE BUILT-UP ROOFING MATERIALS

REX CONSTRUCTION ROOFING

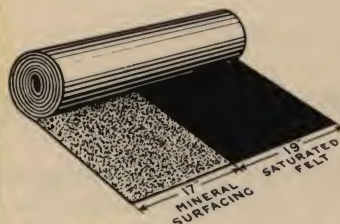
Rex Construction Roofing—A heavy and thoroughly saturated roofing felt 36" wide, having 17" of width heavily coated with asphalt and surfaced with mineral.

This type of felt is always used in 2-ply construction cemented solidly between plies, each overlapping the previous ply for the unsurfaced 19" width.

This 2-ply construction provides an unusually durable mineral surfaced cap sheet over asphalt saturated felts. On bonded jobs these felts are cemented to underlying plies with asphalt or Viskalt.

Where the incline of the roof is over 3" per foot horizontal, Rex Construction Roofing can be applied and cemented between plies with Flintkote Plastic Cement, providing a very serviceable roof. *No Bond* is furnished on this type of application.

Packaged one-half square rolls. Carries Class C Underwriters Label. Packed with Rex Rip Opener.

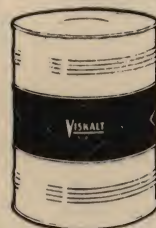


Container	Content	Av. Approx. Shipping Wt. Lbs.
Drum	50 Gal.	425
Can	10 Gal.	87

VISKALT COMPOUND

Viskalt Compound—A special, high grade of asphalt used on built-up roofs where a higher quality waterproofing agent is desired. This superior product is made of the best blends of asphalt fluxes through expertly controlled manufacturing processes.

Viskalt Compound is required on all smooth top built-up roofs when a bond is to be furnished.

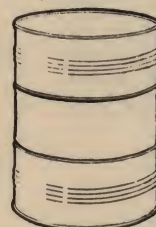


Container	Content	Av. Approx. Shipping Wt. Lbs.
Bbl.	330 Lb.	330

ASPHALT and PITCH

Rex Blended Pitch—The highest quality of pitch produced for built-up roofing purposes. It is always used to cement the various plies of tar-saturated felt together. It is never used as a top coating without slag or gravel or on inclines over 2" per foot.

Roofing Asphalt—A high grade roofing asphalt used on built-up roofing jobs in connection with Viskalt felts where surfacing will be slag or gravel.



Container	Content	Av. Approx. Shipping Wt. Lbs.
Drum	55 Gal.	488
Drum	30 Gal.	272
Can	5 Gal.	43
Can	1 Gal. 6 to Case	61

ASPHALT PRIMER

Asphalt Primer—For priming masonry walls, or metal surfaces before the application of asphalt. Asphalt primer seals the pores of brick or masonry obtaining a better bond for subsequent applications of asphalt. Prepares metal surface so that hot asphalt will adhere more readily.



Sq. Yards Per Roll	Width of Roll	Weight per Roll—Lbs.
50	36"	40.2
16 $\frac{2}{3}$	12"	13.4
8 $\frac{1}{3}$	6"	6.7

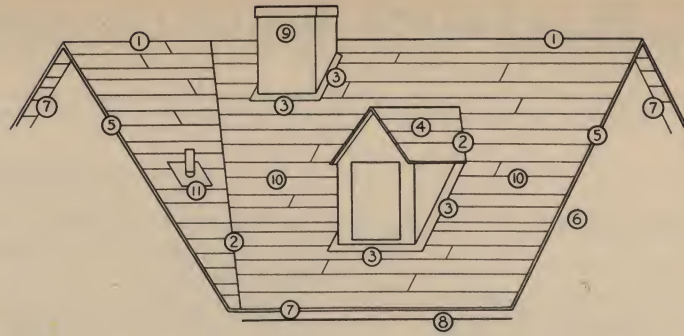
ASPHALT SATURATED MEMBRANE

Asphalt Saturated Membrane—A cotton fabric saturated with asphalt. Used principally for waterproofing or for flashing purposes where a strong reinforcing agent is required because of the possibility of unusual strains or stresses.



ROOF TERMS

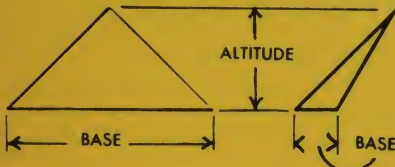
- (1) Ridge—Comb-Line
- (2) Valley
- (3) Flashing
- (4) Dormer Roof
- (5) Verge—Edge
- (6) Gable



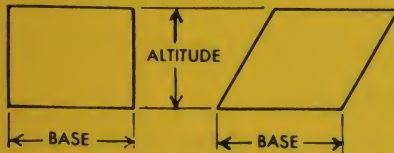
ROOF TERMS

- (7) Eaves
- (8) Gutter
- (9) Chimneys
- (10) Main Body of Roof
- (11) Vent Pipe with Flashing

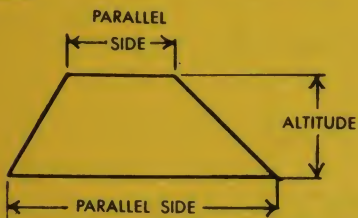
REMINDERS



TRIANGLES: $\text{BASE} \times \frac{1}{2} \text{ ALTITUDE} = \text{AREA}$



PARALLELOGRAMS: $\text{BASE} \times \text{ALTITUDE} = \text{AREA}$



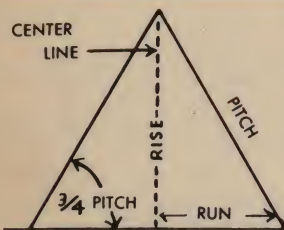
TRAPEZOIDS: $\text{ALTITUDE} \times \frac{1}{2} \text{ SUM OF PARALLEL SIDES} = \text{AREA}$



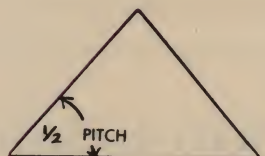
TRAPEZIUMS: Divide into 2 triangles and find the area of the triangles.

CIRCLES:

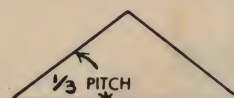
DIAMETER $\times 3.1416 = \text{CIRCUMFERENCE}$
 CIRCUMFERENCE $\times .3183 = \text{DIAMETER}$
 DIAMETER² $\times .7854 = \text{AREA}$



18" Rise to 12" Run



12" Rise to 12" Run



8" Rise to 12" Run



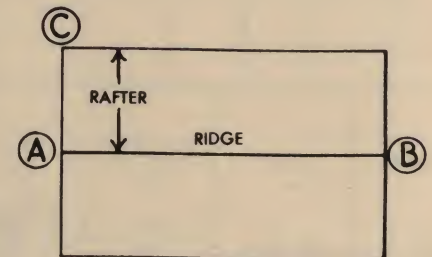
6" Rise to 12" Run

Pitch is the angle or slant of the rafters on a roof. The rise is the vertical distance the rafters climb from the eaves to the ridge. The run is the horizontal distance the rafters cover from the eaves to the ridge. The above diagrams show the roof pitches standard among builders everywhere.

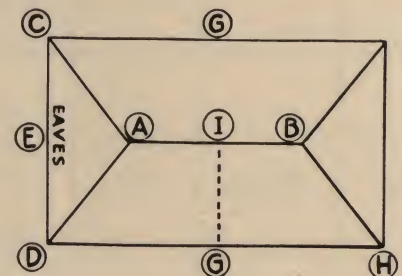
HANDY METHODS OF FIGURING ROOF AREAS

All Asphalt Shingles are sold by the "square"...enough material, when laid according to our instructions, to cover 100 square feet of surface. The number of squares of roofing required is determined by dividing the square foot area of a roof by 100. Below are given a few quick methods of calculating these square foot areas.

PLAIN GABLED ROOFS—Multiply the length of the ridge (A to B) by the length of the rafter (A to C). This gives the area of one side which, multiplied by 2, gives the total roof area.



HIP ROOFS—Multiply the length of the eaves (C to D) by $\frac{1}{2}$ the length of the rafter (A to E). This gives the area of one end of the roof which, multiplied by 2 gives the area of both ends. Next come the sides of the roof—add the length of the ridge (A to B) to the length of the eaves (D to H); divide the sum by 2 and multiply by the length of the rafter (I to G). This gives the area of one side which, multiplied by 2 gives the area of both sides. The sum of the areas of both ends and both sides equals the total roof area.



CONICAL TOWERS—Multiply one-half of the length of the rafter (A to B) by the distance around the eaves at B.



IMPORTANT—When ordering, be sure to call for enough shingles to make a double course at the eaves and to cap the hips and ridges.

ROOF PITCHES EXPLAINED



**SALES OFFICES
OF
THE FLINTKOTE COMPANY**

NEW YORK 50 West 50th Street
ATLANTA 1215 Sylvan Road, S. W.
BOSTON 826 Park Square Building
CHICAGO 624 South Michigan Avenue
CINCINNATI 74th and Lebanon Streets
DETROIT 14201 Schaefer Highway
NEW ORLEANS Poland and Galvez Streets

PIONEER-FLINTKOTE COMPANY
Los Angeles . 55th and Alameda Sts.

COPYRIGHT 1935. THE FLINTKOTE COMPANY.

Industrial photographs appearing in this book taken by Margaret Bourke-White

TABLE OF CONTENTS

	PAGE		PAGE
ASPHALT		PRODUCT SPECIFICATIONS	
analysis of asphalts.....	10	Albikote protective coating.....	44
asphalt converters.....	10, 11	asphalt paints and plastics.....	44
blending of asphalts.....	10	built-up roofing materials and	
native asphalts.....	10	tabulated specifications.....	45 to 49
petroleum asphalts.....	10	individual shingles.....	40
qualities of asphalts.....	10	roll roofings, building papers,	
		sheathing and felts.....	41, 42, 43
CERTIFICATES		static coatings.....	44
of Inspection.....	23	sidings.....	39
of Quality.....	22, 30, 33	strip shingles.....	37, 38
COATING		RESEARCH AND DEVELOPMENT	
impact test results.....	16, 17	contributions to industry.....	20
longer life.....	16, 17	results for consumers.....	20
meaning of "4 to 1".....	16	roof deck tests.....	20, 21
Stabilized coating.....	16, 17	Weather-Ometer tests.....	20, 21
shock test results.....	17		
weathering test results.....	17	ROOFING	
CURLING		comparison with other brands.....	4
comparative tests.....	26	factors that determine quality.....	5
guarantee against.....	26	figuring roof areas.....	50
		manufacturing process.....	12, 13
FELT		ROLL ROOFING	
base of roofing.....	7	display values.....	33
beater machines.....	8	modern packages.....	32, 33
composition of felt.....	7	Rex Rip opener.....	32, 33
drier cylinders.....	9		
dry end of felt machine.....	9	SALES OPPORTUNITY	
Flintkote vs. ordinary.....	7	change in buying habits.....	4
ideal felt.....	7	sell with facts.....	4
variations in quality.....	7	today's buying mood.....	4
wet end of felt machine.....	8		
winding into rolls.....	6	SATURATION	
FIRE RESISTANCE		efficiency of Supersaturation.....	10, 14, 15, 26
annual fire losses.....	28	ordinary saturation.....	10, 14
fire resistance testimonials.....	28, 29		
fire safety in Flintkote shingles.....	28	SHINGLE PACKAGE	
		advantages of package, etc.....	30
FLINTKOTE		label identification.....	30, 31
company history.....	3	merchandising opportunities.....	30, 31
company policy.....	3		
factories.....	2, 3	SURFACING	
felt mills.....	2, 3	a few Flintkote colors.....	34, 35
offices.....	51	importance of surfacing.....	18
product specifications.....	37 to 49	painted granules.....	18, 19
		pioneers in color.....	18
GUARANTEES		sources of minerals.....	18
against curling.....	26	surfacing operation.....	19
importance of proper guarantees.....	24	two classes of minerals.....	18
length of guarantees.....	24	WIND RESISTANCE	
		wind resistance testimonial.....	27

